

# **R91-BPSYS**

Complete Battery System and Enclosure

User & Installation Manual

# **Important Safety Warnings**

Please comply with all warnings and operating instructions in this manual. Save this manual properly and read carefully the following instructions before installing the unit. Do not operate this unit before reading through all safety information and operating instructions carefully.

- Do not try to repair the unit yourself, contact your local supplier or your warranty will be void.
- To eliminate any overheating of the battery box, keep all ventilation openings free from obstruction and do not place any foreign objects on top of the battery bank. Keep the battery box 8 inches away from the wall.
- Make sure the battery box is installed within the proper environment as specified. (0-40°C and 30-90% non-condensing humidity). Do not install the battery box under direct sunlight. Your warranty will be void if the batteries fail due to overheating.
- This battery box is not designed for use in dusty, corrosive and salty environment.
- The warranty for this battery bank will be void if water or other liquid is spilled or poured directly onto the battery box. Similarly we do not warrant any damage to the battery box if foreign objects are deliberately or accidentally inserted into the battery box enclosure.
- The battery will discharge naturally if the system is unused for a period of time. It should be recharged every 2-3 months if unused. If this is not done, then the warranty will be null and void. During normal operation, the batteries will be automatically remained in charged condition.
- Servicing of batteries should be performed or supervised by trained personnel with knowledge of batteries and the required precautions.
- When replacing batteries, it is necessary to replace ALL batteries with the same quantity, type & capacity.
- CAUTION Do not dispose of battery or batteries in a fire. The battery may explode.
- CAUTION Do not open or mutilate the batteries. The electrolyte from the batteries is toxic and harmful to the skin and eyes. It may be toxic
- CAUTION Risk of Electric Shock –Hazardous voltage may exist between battery terminals and ground.
   Test before touching with bare hands.
- CAUTION 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 precaution should be observed
  when working on batteries:
  - 1. Remove watches, rings, or other metal objects.
  - 2. Use tools with insulated handles.
  - 3. Wear rubber gloves and boots.
  - 4. Do not lay tools or metal parts on top of batteries.
  - 5. Disconnect charging source prior to installing or maintaining the battery.
  - 6. Remove battery grounds during installation and maintenance to reduce likelihood of shock. Remove the connection from ground if any part of the battery is determined to be grounded.
- Do not plug or unplug the battery connector if UPS is in battery (discharging) mode.

# **Installation and Setup**

**Note:** Before installation, please inspect the unit. Be sure that nothing inside the package is damaged. Please keep the original packing material in a safe place for future use.

## **Unpacking & Inspection**

Attention: Any damage to packing should be noted at the time of receipt with the delivery carrier

Remove the shelf kit, battery enclosure, and battery modules from the packaging.

Note: The battery modules are very heavy, be cautious when unpacking and lifting the unit to avoid injury.

## Selecting Installation Position

It is necessary to select a proper environment to install the unit, in order to minimize the possibility of damage to the battery system and extend the life of the batteries. Please follow the instructions below:

- 7. Do not block the air-flow to the ventilation openings of the unit.
- 8. Please ensure the installation site environmental conditions are in accordance with the unit's working specifications to avoid overheat and excessive moisture.
- 9. Do not place the unit in a dusty or corrosive environment or near any flammable objects.
- 10. This unit is not designed for outdoor use.

#### **Enclosure Installation**

**Note:** Shelf kit must be installed per battery enclosure.

- 1. Add moveable cage nuts to desired front and rear location for shelf kit and battery enclosure.
- 2. Attach shelf kit into the rack with screws at front and rear.
- 3. Slide the battery enclosure from the front into the rack onto the shelf kit.
- 4. Fasten front and rear mounting ears to battery enclosure
- 5. Attach the mounting ears of the battery enclosure into the shelf kit and rack with screws at front and rear.

### **Battery Module Installation**

**Step 1:** Remove front cover from the battery enclosure.

**Step 2:** Remove bags from the battery connectors.



**Step 2:** Move aside the battery connectors and slide in battery modules.



**Step 3:** Connect cables to battery modules as shown below.



**Step 4:** Secure front cover in place.



**Step 5:** Remove UPS connection cover from battery pack and connect the Anderson connector to UPS.



# Storage & Maintenance

The unit contains no user-serviceable parts. If the battery service life (3~5 years at 25°C ambient temperature) has been exceeded, the batteries must be replaced. In this case, please contact your dealer.

#### **Storage**

Before storing, charge the unit 4 hours. Store the unit covered and upright in a cool, dry location. During storage, recharge the battery in accordance with the following table:

Storage Temperature	Recharge Frequency	Charging Duration
-25°C - 40°C	Every 3 months	1-2 hours
40°C - 45°C	Every 2 months	1-2 hours