



UPS-XBPA Series: Expansion Battery Pack

Models: UPS-XBPA-36, UPS-XBPA-36E, UPS-XBPA-48, UPS-XBPA-72

User & Installation Manual

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Chapter 1. Important Safety Warnings

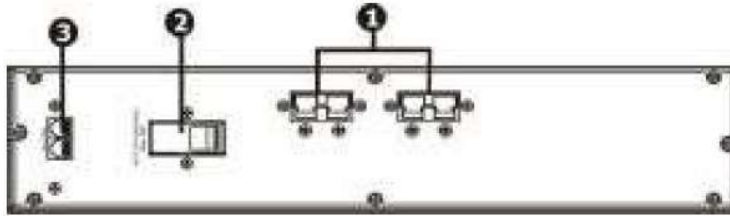
Please comply with all warnings and operating instructions in this manual strictly. Save this manual properly and carefully read the following instructions before installing the unit. Do not operate this unit before reading through all safety information and operating instructions carefully.

- 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 20m 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 spilt 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.
- 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.
- 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.
The following precaution should be observed when working on batteries:
 - a. Remove watches, rings, or other metal objects.
 - b. Use tools with insulated handles.
 - b. Wear rubber gloves and boots.
 - c. Do not lay tools or metal parts on top of batteries.
 - d. Disconnect charging source prior to connecting or disconnecting battery terminals.
- Do not plug or unplug the battery connector if UPS works in DC (discharging) mode.

Chapter 2. Product Overview and Setup

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

2-1: Rear panel view

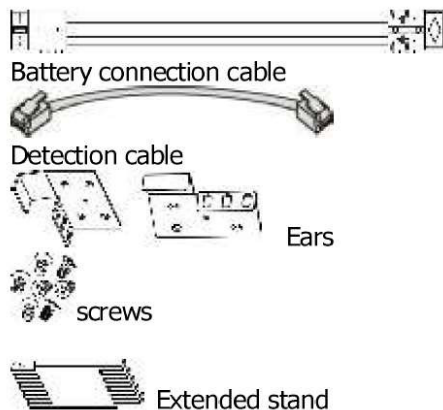


- 1) DC connector: connects to either UPS or 2nd battery box
- 2) DC breaker: Battery over-current protection breaker
- 3) External battery numbers detection port: detects the numbers of connected batteries.

2-2: Installation and setup with UPS

Unpacking and inspection.

- 1) Remove the battery box from the packing. Note: The battery box is very heavy. Be cautious when unpacking and lifting the unit to avoid injury.
- 2) Check the inside package
 - Battery box unit
 - Quick guide
 - Battery connection cable x 1
 - Detection cable x 1
 - Ear x 2 & screw x 8
 - Extended stand



2-3: Selecting installation position

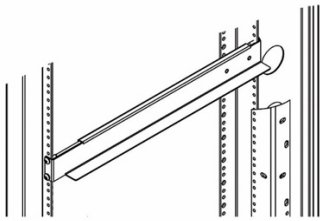
It is necessary to select a proper environment to install the unit, to minimize the possibility of damage to the battery box and extend the life of the batteries. Please follow the instructions below:

- Keep at least 20cm (8 inches) clearance from the rear panel of the unit from the wall or other obstructions.
- Do not block the airflow to the ventilation openings of the unit.
- Please ensure the installation site environmental conditions are in accordance with the unit's working specifications to avoid overheating and excessive moisture.
- Do not place the unit in a dusty or corrosive environment or near flammable objects.
- This unit is not designed for outdoor use.

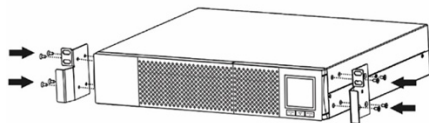
This unit can either be mounted or placed vertically on the desk.

Rack installation:

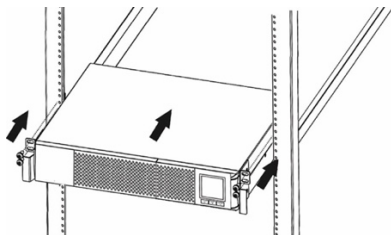
Step 1: Mount the 4-point rail kit to the rack. Use the (8) 10-32 screws provided to mount left and right support rails (front and rear).



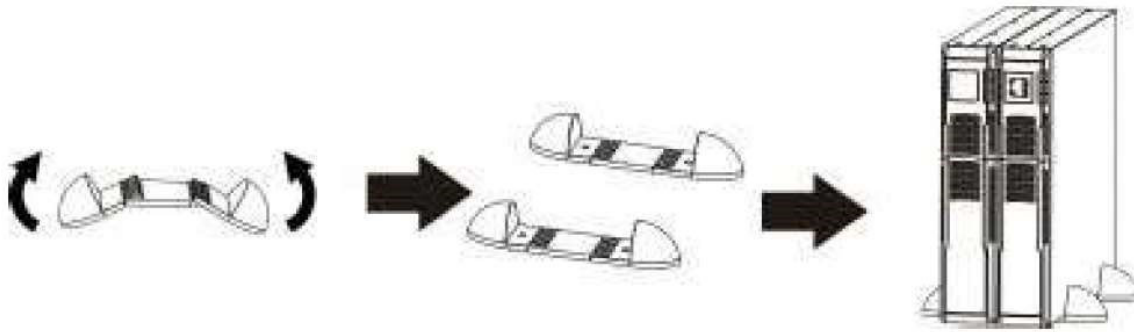
Step 2: Attach the mounting brackets to the UPS. **CAUTION**—DO NOT use mounting brackets to lift the UPS; brackets are only to secure it to the rack.



Step 3: Place UPS on the support rails and secure in place with front screws, allowing the horizontal rails to support the weight of the UPS.

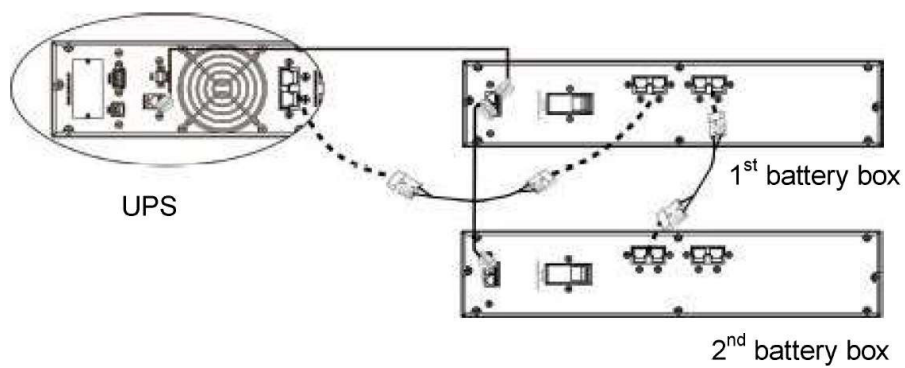


Tower installation:



Connecting with UPS and another Battery Box:

Follow below installation chart to connect with UPS and another battery box with included:



Chapter 3. Type of Battery Required

This battery box has been designed to operate with the following types of batteries:

- UPS-XBPA-36: 36V/18Ah Version: 6 pieces of 12V 9Ah (3+3) batteries
- UPS-XBPA-36E: 36V/36Ah Version: 12 pieces of 12V 9Ah (3+3+3+3) batteries
- UPS-XBPA-48: 48V/18Ah Version: 8 pieces of 12V 9Ah (4+4) batteries
- UPS-XBPA-72: 72V/18Ah Version: 12 pieces of 12V 9Ah (6+6) batteries

Chapter 4. Battery Installation

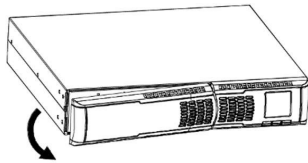
If your battery box is not installed with batteries, please follow proper procedure to put batteries inside of unit.

NOTE: MAKE SURE THAT THE BATTERY BOX IS DISCONNECTED FROM THE UPS BEFORE PERFORMING THE FOLLOWING SEQUENCE OF OPERATIONS.

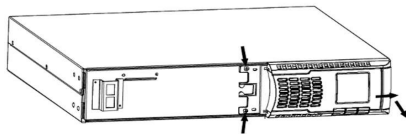
4-1. UPS-XBPA-36

Step 1: Open the package and place the battery box on a horizontal plane.

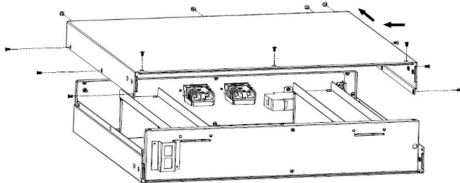
Step 2: Remove the removable front panel part by pulling it from the lower extremity.



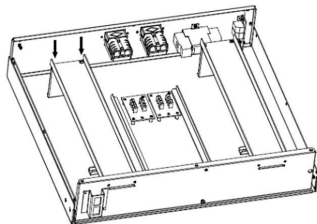
Step 3: Remove the fixed part of the front panel by removing the 2 screws.



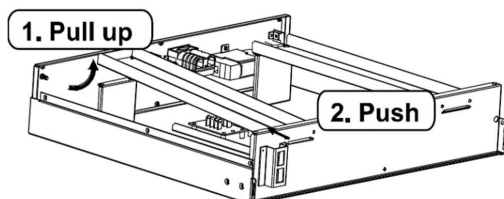
Step 4: Remove the metal top cover of the battery box by unscrewing 6 screws present on the two sides (3 on the right side and 3 on the left), 3 screws on the top and 4 screws on the back side.



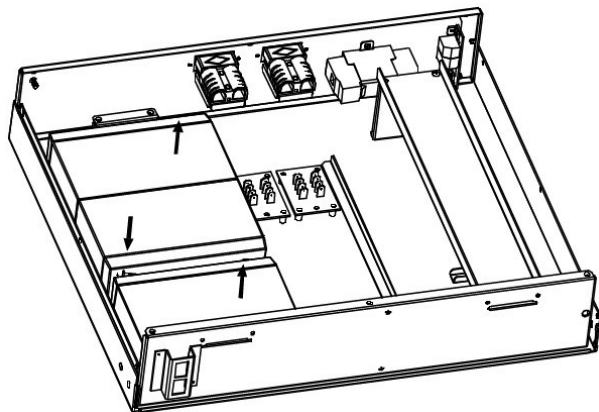
Step 5: Once battery box is opened, remove the battery fixing plate present on the left side by unscrewing 2 screws present.



Pull up first and then push the battery fixing plate.



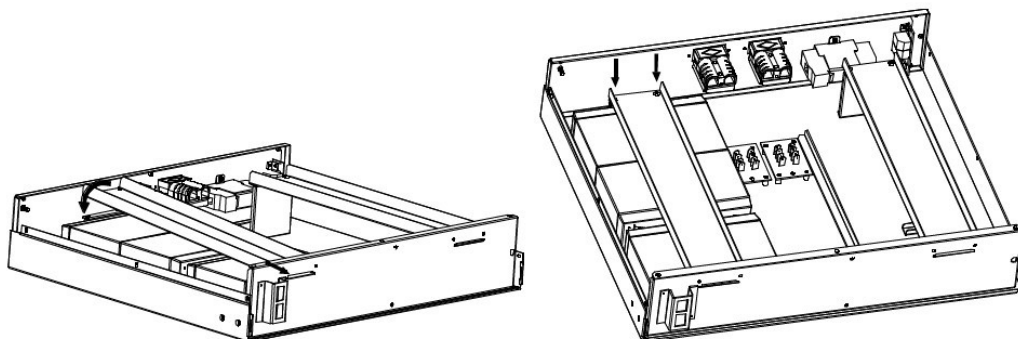
Step 6: Now, it is possible to put the batteries inside following the picture below (in the following drawing is indicated the fasten positions for the correct batteries placing).



Note: To install the second string of batteries, repeat the same procedure on the right side of battery box.

Step 7: Connecting all batteries following the wiring diagram shown in chapter 5.

Step 8: Secure all batteries inside with the metal plate.



Note: To install the second string of batteries, repeat the same procedure on the right side of battery box.

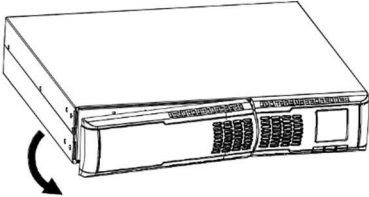
Step 9: Put metal top cover back to the unit. Close the frontal fixing plate and the two parts of the front panel and secure it with screws.

Step 10: Connect the battery box to the UPS.

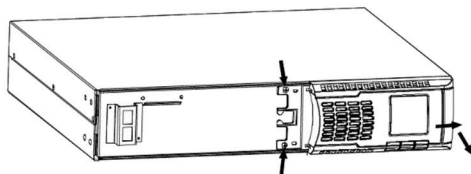
4-2. UPS-XBPA-36E

Step 1: Open the package and place the battery box on a horizontal plane.

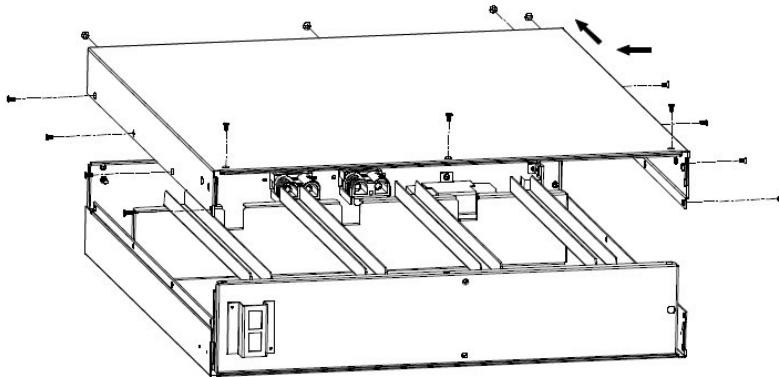
Step 2: Remove the removable front panel part by pulling it from the lower extremity.



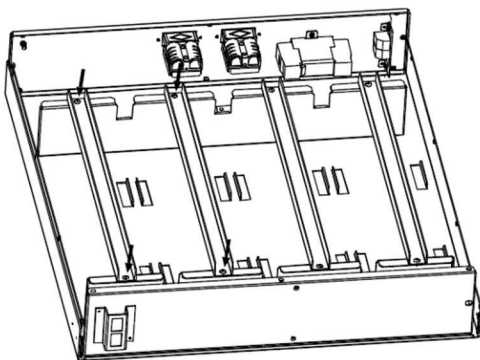
Step 3: Remove the fixed part of the front panel by removing the 2 screws.



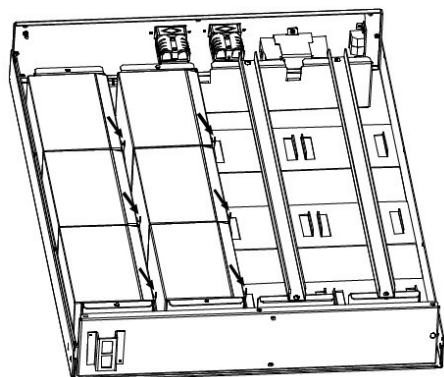
Step 4: Remove the metal top cover of the battery box by unscrewing 8 screws present on the two sides (4 on the right side and 4 on the left), 3 screws on the top and 4 screws on the back side.



Step 5: Once battery box is opened, remove the battery fixing plate present on the left side by unscrewing 2 screws present.



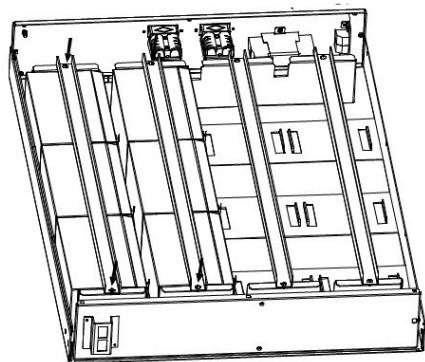
Step 6: Now, it is possible to put the 1st and 2nd strings of batteries inside following the picture below (in the following drawing is indicated the fasten positions for the correct batteries placing).



Note: To install the 3rd and 4th strings of batteries, repeat the same procedure on the right side of battery box.

Step 7: Connecting all batteries following the wiring diagram shown in chapter 5.

Step 8: Secure all batteries of the 1st and 2nd strings inside with the metal plate.



Note: To install the 3rd and 4th strings of batteries, repeat the same procedure on the right side of battery box.

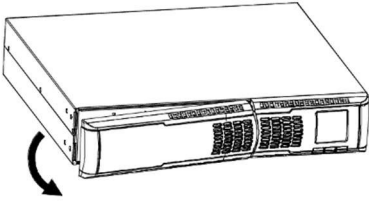
Step 9: Put metal top cover back to the unit. Close the frontal fixing plate and the two parts of the front panel and secure it with screws.

Step 10: Connect the battery box to the UPS.

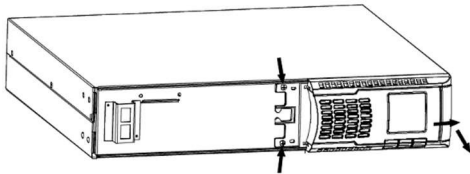
4-3: UPS-XBPA-48

Step 1: Open the package and place the battery box on a horizontal plane.

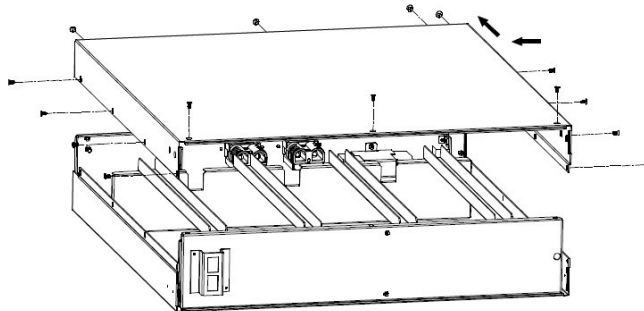
Step 2: Remove the removable front panel part by pulling it from the lower extremity.



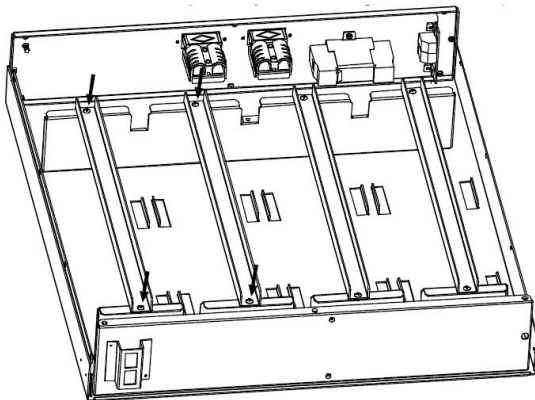
Step 3: Remove the fixed part of the front panel by removing the 2 screws.



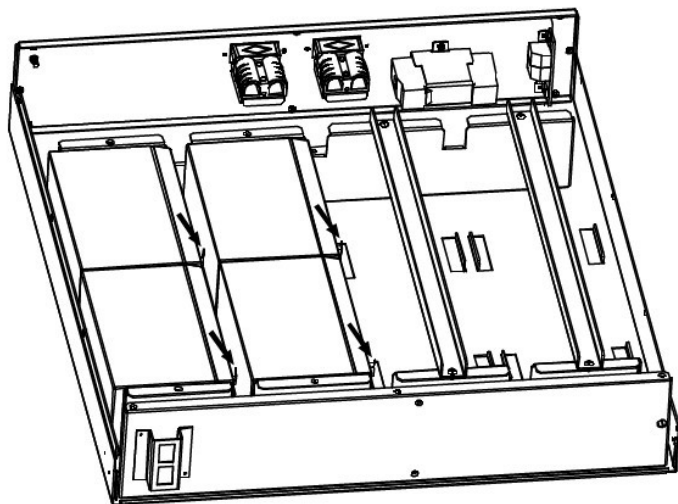
Step 4: Remove the metal top cover of the battery box by unscrewing 8 screws present on the two sides (4 on the right side and 4 on the left), 3 screws on the top and 4 screws on the back side.



Step 5: Once battery box is opened, remove the battery fixing plate present on the left side by unscrewing 2 screws present.



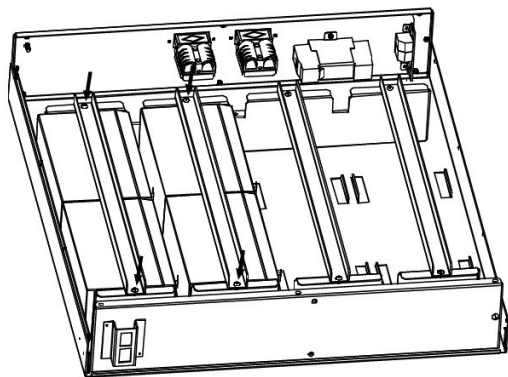
Step 6: Now, it is possible to put the batteries inside following the picture below (in the following drawing is indicated the fasten positions for the correct batteries placing).



Note: To install the second string of batteries, repeat the same procedure on the right side of battery box.

Step 7: Connecting all batteries following the wiring diagram shown in chapter 5.

Step 8: Secure all batteries inside with the metal plate.



Note: To install the second string of batteries, repeat the same procedure on the right side of battery box.

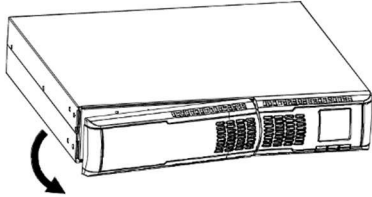
Step 9: Put metal top cover back to the unit. Close the frontal fixing plate and the two parts of the front panel and secure it with screws.

Step 10: Connect the battery box to the UPS.

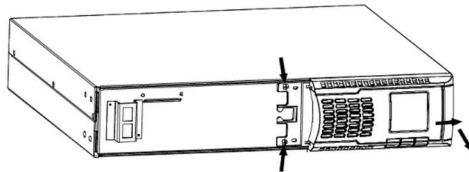
4-4: UPS-XBPA-72

Step 1: Open the package and place the battery box on a horizontal plane.

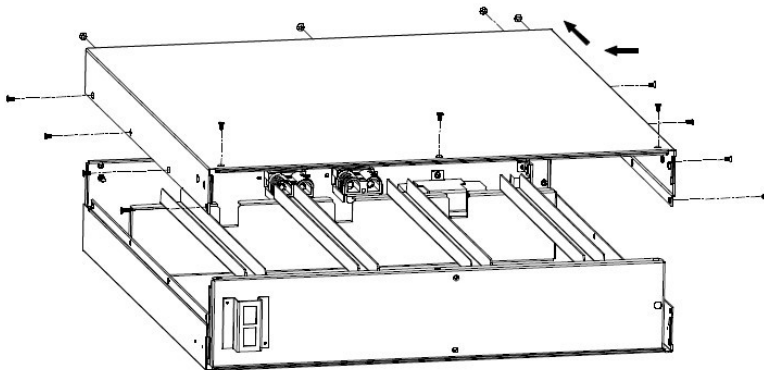
Step 2: Remove the removable front panel part by pulling it from the lower extremity.



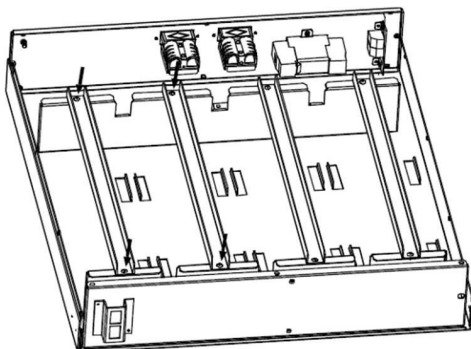
Step 3: Remove the fixed part of the front panel by removing the 2 screws.



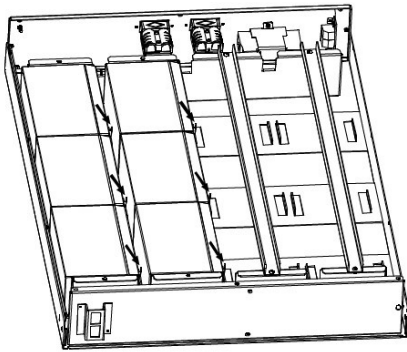
Step 4: Remove the metal top cover of the battery box by unscrewing 8 screws present on the two sides (4 on the right side and 4 on the left), 3 screws on the top and 4 screws on the back side.



Step 5: Once battery box is opened, remove the battery fixing plate present on the left side by unscrewing 2 screws present.



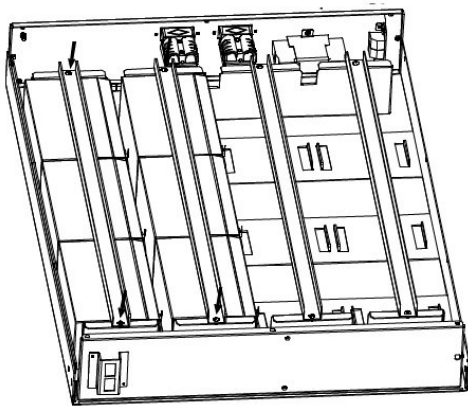
Step 6: Now, it is possible to put the batteries inside following the picture below (in the following drawing is indicated the fasten positions for the correct batteries placing).



Note: To install the second string of batteries, repeat the same procedure on the right side of battery box.

Step 7: Connecting all batteries following the wiring diagram shown in chapter 5.

Step 8: Secure all batteries inside with the metal plate.



Note: To install the second string of batteries, repeat the same procedure on the right side of battery box.

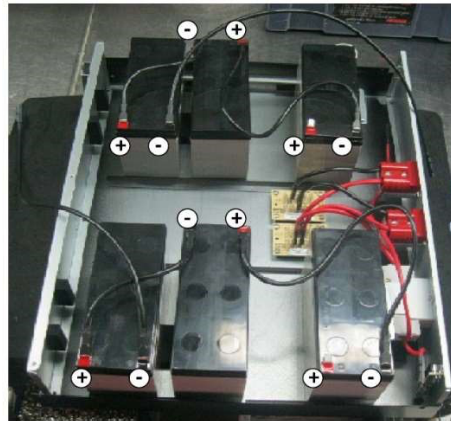
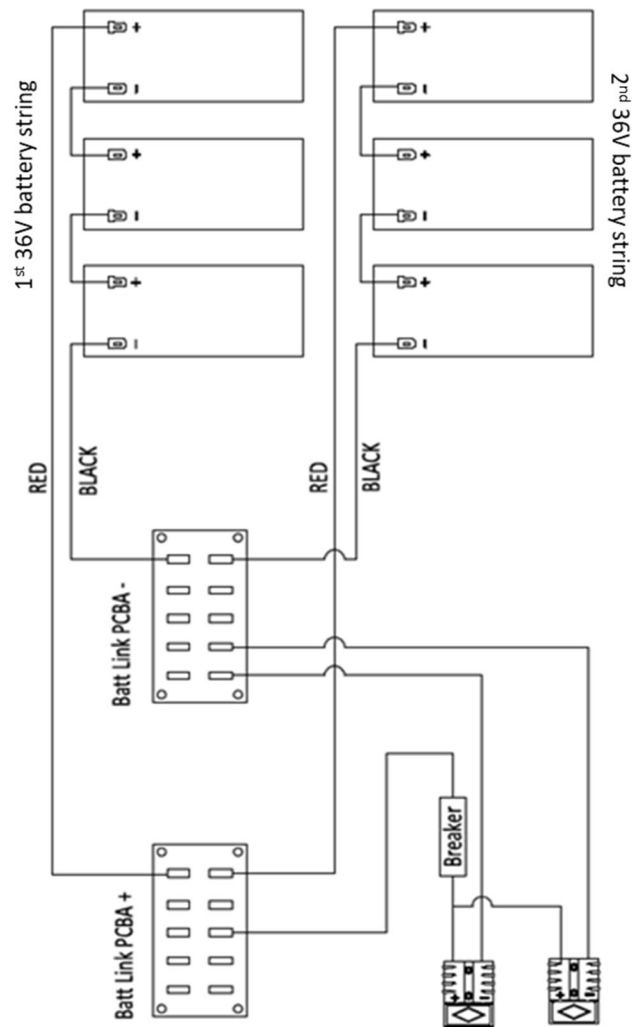
Step 9: Put metal top cover back to the unit. Close the frontal fixing plate and the two parts of the front panel and secure it with screws.

Step 10: Connect the battery box to the UPS.

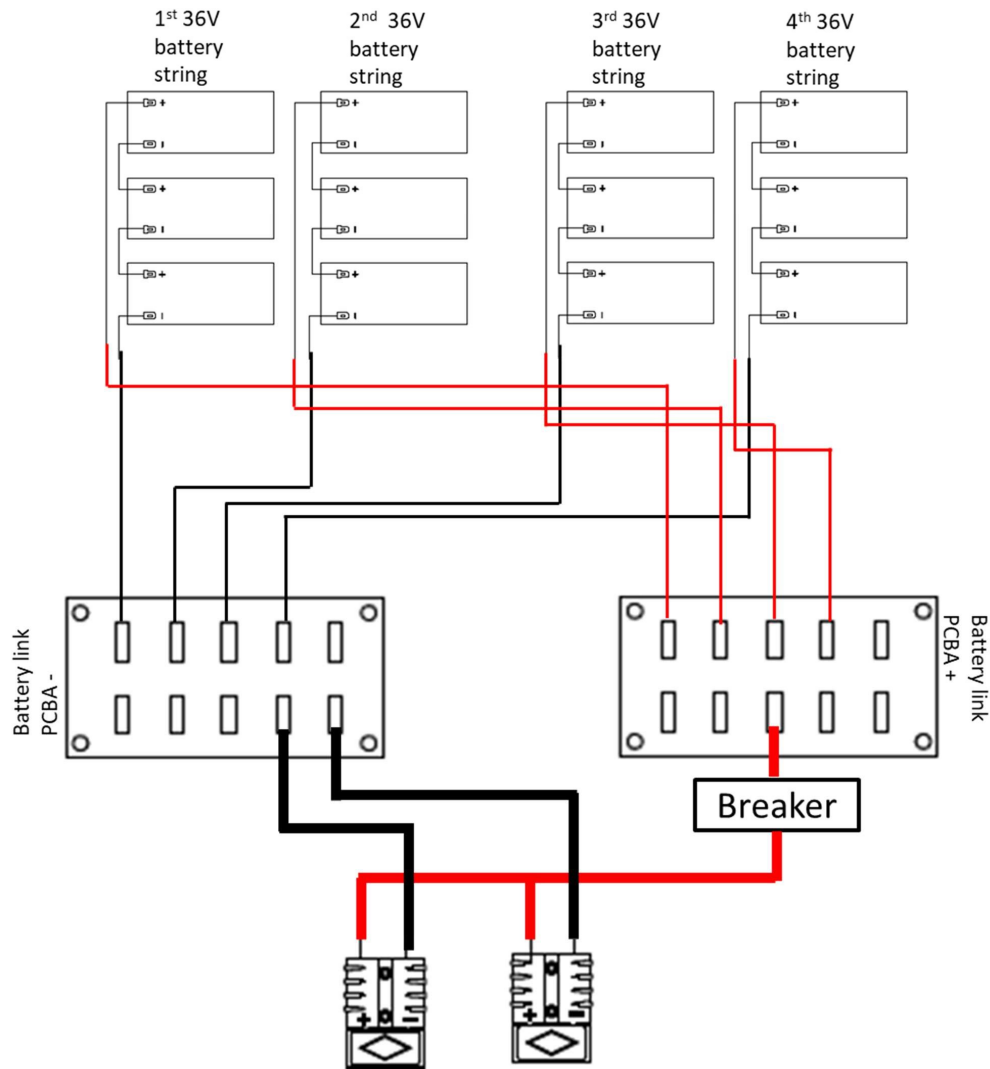
Chapter 5. Wiring Diagrams

Note: The cable connection from external battery connector to PCB is already present inside the battery box. All the other cable connection should be followed by wiring diagram.

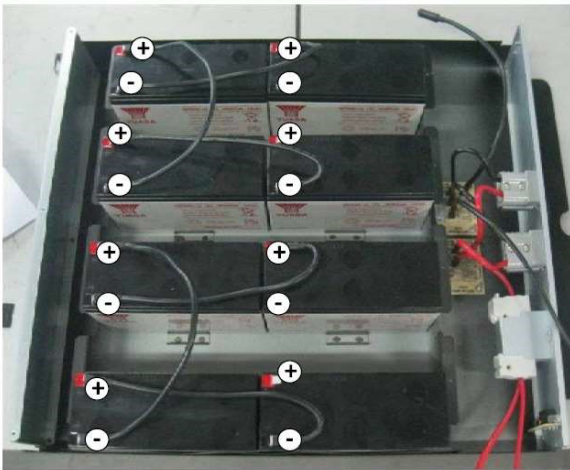
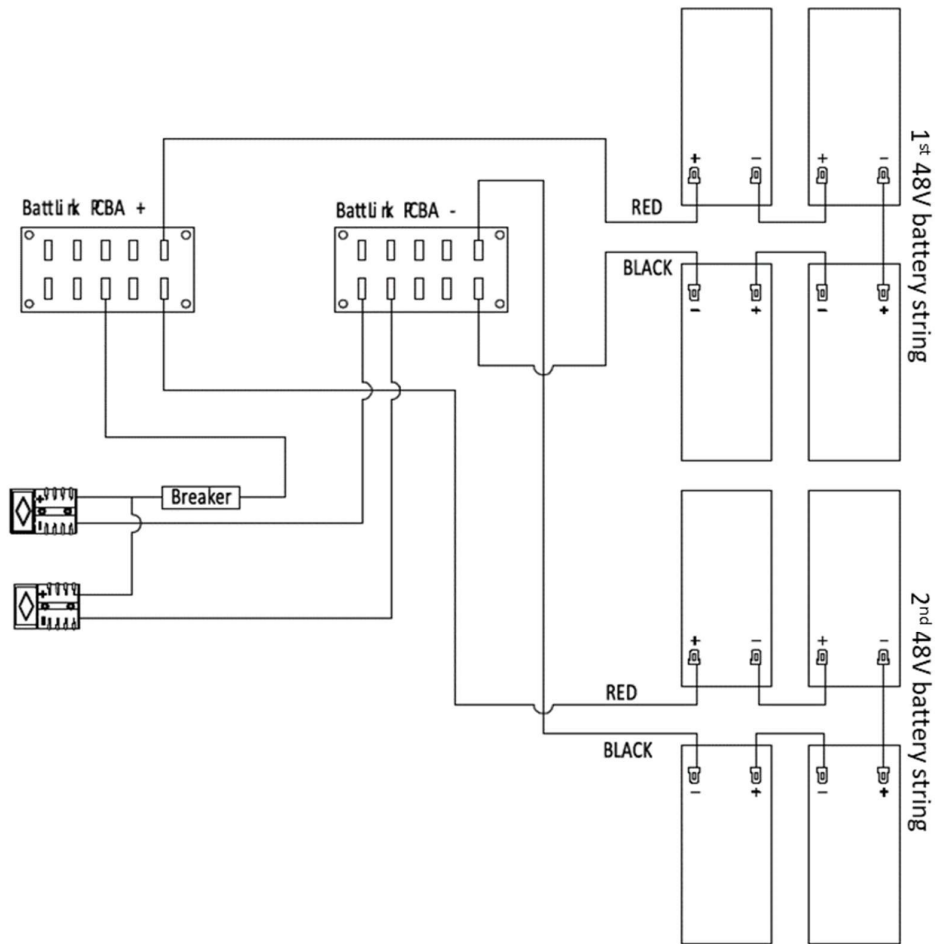
5-1: UPS-XBPA-36



5-2: UPS-XBPA-36E



5-3: UPS-XBPA-48



5-4: UPS-XBPA-72

