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Delta UPS - Amplon Family

RT Series, Single Phase

1/ 1.5/ 2/ 3 kVA

External Battery Pack

User Manual

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Save This Manual

This manual contains important instructions and warnings that you should follow during the installation, operation, storage and maintenance of this product. Failure to heed these instructions and warnings will void the warranty.

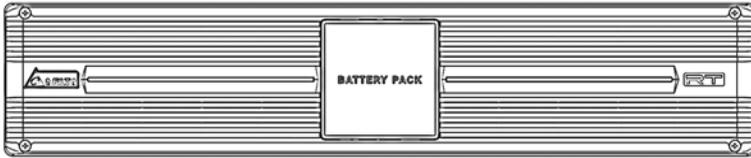
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Chapter 1 : Product Introduction

When the UPS is operating during a power outage, the battery pack provides DC power, which maintains inverter operation to supply power to the critical loads connected to the UPS.



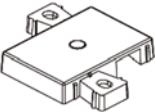
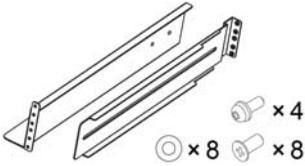
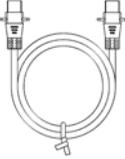
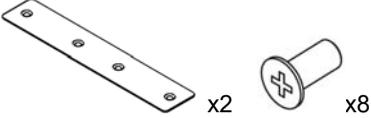
(Figure 1: Delta External Battery Pack Front View)

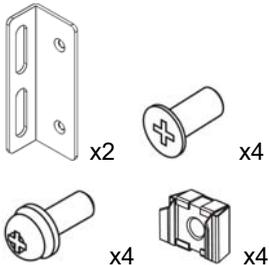
Chapter 2 : Important Safety Instructions

- Servicing of batteries and battery packs must be performed or supervised by qualified service personnel knowledgeable in batteries, battery packs and the required precautions. Keep unauthorized personnel away from batteries and battery packs.
- A battery can present a risk of electric shock and high short-circuit current.
- To reduce the risk of fire or electric shock, install the battery pack in a temperature and humidity controlled indoor area free of conductive contaminants.
- Forbid opening or removing the cover of the battery pack to avoid high voltage electric shock.
- The risk of dangerous high voltage is possible when the batteries are still connected to the UPS even though the UPS is disconnected from the mains. Do not forget to disconnect the battery cable to completely cut off the battery source.
- Turn off the UPS and cut off the AC source before performing battery/ battery pack replacement.
- Only use the same type of batteries from the same supplier. Never use old, new and different Ah batteries at the same time.
- The number of batteries must meet UPS requirements.
- Do not reverse or short circuit the polarity + and – when connecting the batteries because this will destroy the device and constitute a risk of electric shock or fire.

- Use a voltage meter to measure whether the total voltage, after battery pack connection, is around $12.5\text{Vdc} \times$ the total number of batteries.
- The external slits and openings of the battery pack are provided for ventilation. To ensure reliable operation of the battery pack and to protect the battery pack from overheating, these slits and openings must not be blocked or covered.
- Do not insert any object into the slits and openings that may hinder ventilation.
- Do not allow liquid or any foreign object to enter the battery pack.
- Do not place beverages or any other liquid-containing vessels on or near the battery pack.
- Do not dispose of the battery or batteries in a fire. The batteries may explode.
- Do not open or mutilate the battery or batteries. The released electrolyte is harmful to the skin and eyes and may be toxic.
- Observe the following before replacing 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 the top of batteries.
 5. Disconnect the charging source prior to connecting or disconnecting the batteries' terminals.

Chapter 3 : Package List

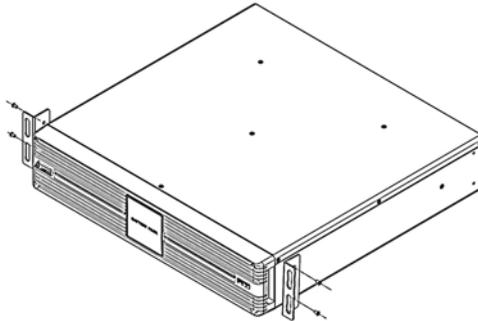
| No. | ITEM | Q'ty | Drawing |
|-----|------------------------|-------|---|
| 1 | External Battery Pack | 1 PC |  |
| 2 | User Manual | 1 PC |  |
| 3 | Tower Stand Extender | 4 PCS |  |
| 4 | Rail Kit | 1 SET |  |
| 5 | External Battery Cable | 1 PC |  |
| 6 | Fastener | 1 SET |  |

| | | | |
|---|-------------|-------|---|
| 7 | Bracket Ear | 1 SET |  <p>The diagram illustrates the components of the Bracket Ear assembly. It includes two L-shaped brackets, each with two slots and a hole. Four screws are shown, two of which are used to secure the brackets. Four rectangular spacers are also shown, which are used to adjust the distance between the brackets. The quantities for each component are indicated by 'x2' and 'x4'.</p> |
|---|-------------|-------|---|

Chapter 4 : Installation Procedures

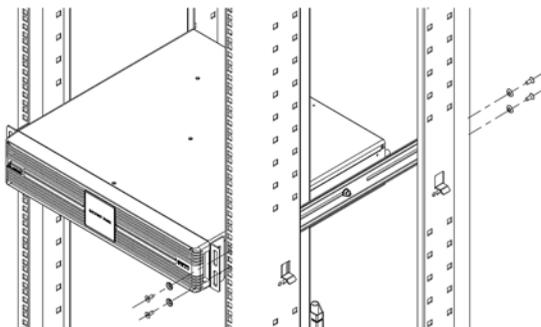
- Rack Mounting

1. Attach the included bracket ears to the lateral mounting holes of the Delta external battery pack. See **Figure 2**.



(Figure 2: Mount the Bracket Ears)

2. Follow steps ① to ④ to install the Delta external battery pack in Delta's rail kit (provided). See **Figure 3**.
Step ① : Adjust the length of the rails according to your rack.
Step ② : Tighten the rails' nuts.
Step ③ : Fix the rails on your rack.
Step ④ : Insert the Delta external battery pack in your rack and tighten the provided screws.



(Figure 3: Insert the Delta External Battery Pack to Your Rack)

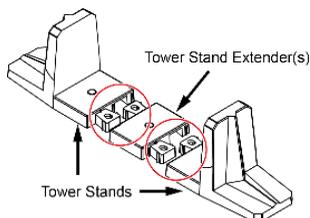


NOTE:

If you want to use a non-Delta rail kit, please only follow **step** ④.

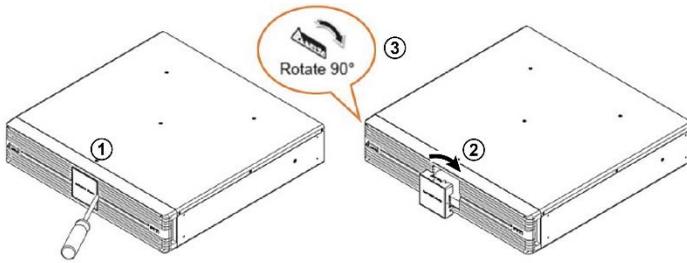
- Tower Mounting

1. Connect your UPS's tower stands with the provided tower stand extender(s) according to the width of your UPS and the Delta external battery pack. See **Figure 4**.



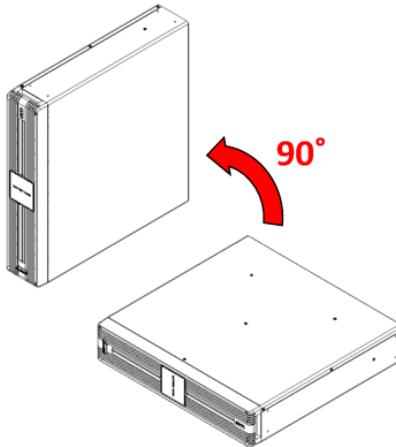
(Figure 4: Connect the Tower Stands with the Tower Stand Extender(s))

2. Pull out the Delta external battery pack's control panel (①), rotate it 90° clockwise (②) and re-insert the control panel. After that, rotate the Delta logo nameplate 90° clockwise (③). See **Figure 5**.



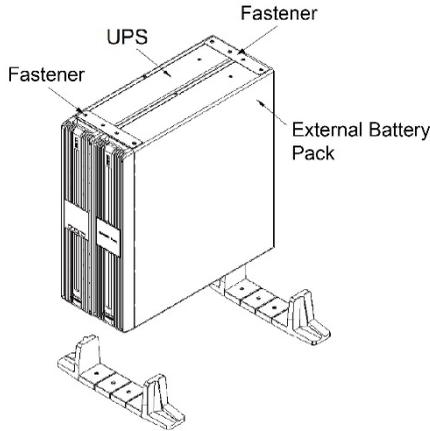
(Figure 5: Rotate the Delta External Battery Pack's Control Panel & Delta Logo Nameplate)

- Carefully lift the Delta external battery pack upright with the Delta logo  facing up. A minimum of two people are required. See **Figure 6**.



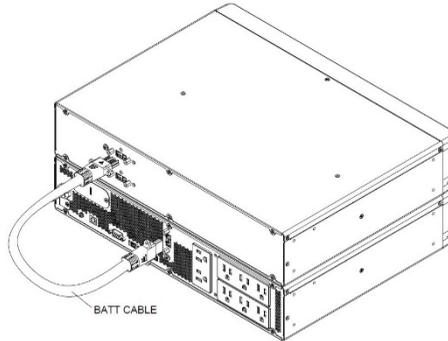
(Figure 6: Place the Delta External Battery Pack Upright)

4. Place the Delta external battery pack and the UPS into the tower stands. See **Figure 7**.



(Figure 7: Place the Delta External Battery Pack and the UPS into the Tower Stands)

5. Use the provided fasteners to join the top of the UPS and Delta external battery pack together. Please refer to **Figure 7**.
- Connect the Delta External Battery Pack with the UPS
 1. Connect one end of the provided battery cable to the external battery connector on the UPS, and connect the other end to one of the external battery connectors on the Delta external battery pack. Make sure that the positive cable (+) connects to the positive pole (+) and the negative cable (-) connects to the negative pole (-). See **Figure 8**.



(Figure 8: Connect the UPS and the Delta External Battery Pack)



NOTE:

There are two identical external battery connectors on the Delta external battery pack, and you may use either of the battery connectors to connect to the UPS.

- **Parallel the Delta External Battery Packs**

To extend the backup time, you may parallel the Delta external battery packs before connecting them to the UPS.



WARNING:

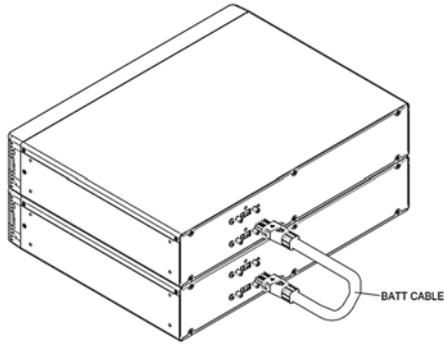
For parallel application, only use the same type of Delta external battery packs (same material No.)

Use the provided battery cable to connect the Delta external battery pack's battery connector to the other Delta external battery pack's battery connector. Each Delta external battery pack has two external battery connectors; please choose one for the connection mentioned above. Make sure that the positive cable (+) connects to the positive pole (+) and the negative cable (-) connects to the negative pole (-). Please see **Figure 9**.



NOTE:

If you want to connect more than two Delta external battery packs, follow the steps mentioned above.



(Figure 9: Parallel the Delta External Battery Packs)



NOTE:

Once the parallel connection is completed, please refer to the steps mentioned in '**Connect the Delta External Battery Pack with the UPS**' to connect any of the parallel Delta external battery packs to the UPS.

Chapter 5 : Operation Procedures

1. Follow ***Delta Amplon RT Series 1/ 1.5/ 2/ 3kVA UPS User Manual*** to execute input/ output connection.
2. Follow ***Chapter 4 : Installation Procedures*** to connect the UPS and the Delta external battery pack.
3. Follow ***Delta Amplon RT Series 1/ 1.5/ 2/ 3kVA UPS User Manual*** to turn on the UPS.

Chapter 6 : Technical Specifications

| Delta External Battery Pack | | RT-1KB | RT-1.5KB |
|------------------------------------|-----------------------|---|---|
| Applicable to Amplon RT Series UPS | | 1kVA | 1.5kVA |
| Battery | Type | VRLA | |
| | Q'ty | 2 × 2 × 12V/9Ah | 2 × 3 × 12V/9Ah |
| Dimensions (W × D × H) | | 440 × 335 × 88.2 mm (17.3 x 13.2 x 3.5 inch) | 440 × 430 × 88.2 mm (17.3 x 16.9 x 3.5 inch) |
| Weight | | 16 Kg (35.3 lb) | 23.1 Kg (50.9 lb) |
| Environment | Operating Temperature | 0°C~50°C (32°F~122°F) | |
| | Relative Humidity | 5%~95% (No condensing) | |

| | | | |
|---|-----------------------|---|---|
| Delta External Battery Pack | | RT-2KB | RT-3KB |
| Applicable to Amplon RT Series UPS | | 2kVA | 3kVA |
| Battery | Type | VRLA | |
| | Q'ty | 2 × 4 × 12V/9Ah | 2 × 6 × 12V/9Ah |
| Dimensions (W × D × H) | | 440 × 430 × 88.2 mm (17.3 x 16.9 x 3.5 inch) | 440 × 565 × 88.2 mm (17.3 x 22.2 x 3.5 inch) |
| Weight | | 28.1 Kg (62 lb) | 44 Kg (97 lb) |
| Environment | Operating Temperature | 0°C~50°C (32°F~122°F) | |
| | Relative Humidity | 5%~95% (No condensing) | |



NOTE:

1. Please refer to the rating label for the safety rating.
2. All specifications are subject to change without prior notice.

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