

## Undermount PWE Series Battery Expansion Enclosure Field Installation Guide

The Undermount Battery Expansion Enclosure (UBE) increases capacity of PWE Series enclosures, providing space for three additional batteries. The UBE-PWE easily and quickly attaches below an existing PWE-3 pole-mounted enclosure.

Tools and materials:

- Drill with 17/64", 13/64", and 3/4" bits
- Rubber mallet
- Center punch
- #2 Phillips screw driver
- Tape for positioning template
- Four #10-32 x 3/4" pan head screws, washers, KEPS nuts (provided)
- Two 7/16" wrenches
- Two 1/4"-20 KEPS Nuts (provided)

### NOTE:

To fit properly into the PWE, the pole mount bracket bolt must not protrude from the center dimple of the bracket. If the bolt is protruding, it needs to be cut or ground flush with the front face of the pole mount bracket.

### A. Mounting the UBE to the Existing Enclosure

Follow these steps to mount the UBE to the existing enclosure. See Section B for separate bracket mounting instructions for wood, concrete or steel, or wall mounted enclosures.

1. Remove the door from the existing unit. This door will be replaced by the new door.
2. Use the templates provided to mark the drill holes. Carefully align the appropriate template with the corresponding front and bottom side edge of the existing enclosure and tape in place.

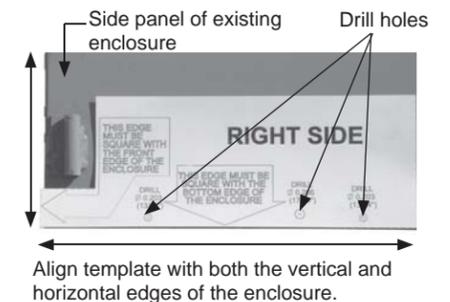


Fig. 1, Marking Drill Holes

### CAUTION!

The template must be flush with both edges of the enclosure or the screw holes will not align properly. Oversized or poorly placed holes may cause the joint to fail.

3. After confirming the position of the template, use a center punch to mark the drill locations. Repeat for the other side. See Fig. 1
4. Using a drill with a 13/64" bit, drill two holes through the marked drill locations on each side of the UBE. With the 17/64" bit, drill or enlarge each center hole. There should now be three holes on each side of the existing enclosure.
5. Position the right side of the UBE inside the bottom lip of the PWE. Insert the stud, located at the top edge of the UBE, into the 17/64" drilled hole. You can use your rubber mallet to aid in positioning the unit. See Figs. 2 and 3.



Fig. 2, Position UBE



Fig. 3, Maneuver Side of UBE into Existing Enclosure

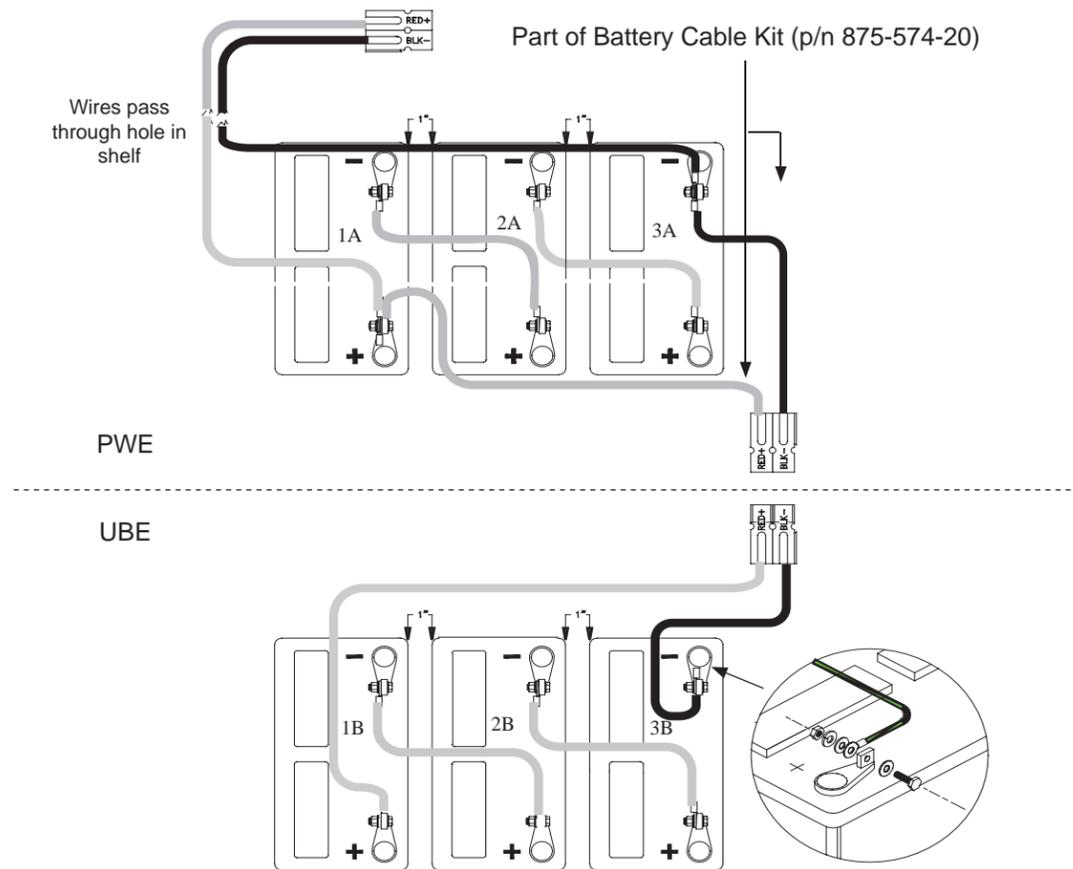


Fig. 11, Battery Wiring Diagram

### NOTE:

There are small holes on the bottom edge of the UBE. They are not load-bearing. Do not use these holes for support.

For more information visit [www.alpha.com](http://www.alpha.com)

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## CAUTION!

To maintain the integrity of the enclosure, take extra care to ensure all fasteners are properly tightened.

- Fasten the center stud using the provided 1/4-20 KEPS nut. There will be two holes remaining, one on either side of the center stud. If necessary, use your drill to ensure the 13/64" holes are clear.
- Insert the provided screws (#10-32 x 3/4") into the holes located to the side of the center screw. Using the flat washers and Nylock nuts provided, complete securing the unit. Repeat Steps 4 through 7 for the left side of the unit.



Fig. 5, There is an optional 8" extended bracket available.

## B. Securing the Lower Bracket to the Pole

### For Wood Poles:

- Place the bracket in the UBE backstrap and mark the hole for the lower mounting bracket. If required, use the bolt provided in the backstrap to hold the bracket in place.
- Using a 3/4" bit, drill a hole completely through the wooden pole.
- Secure the bracket with a 5/8" bolt, washer, and nut. Hand tighten. Use a rubber mallet to ensure the bracket is seated tightly against the enclosure back strap and tighten securely. See Fig. 6.
- You are now ready to add and connect the batteries. See Fig. 7.

### For Concrete or Steel Poles:

To secure the UBE to a concrete or steel mounted enclosure, follow the instructions provided for securing the bracket to a wooden pole, but use customer-supplied stainless, galvanized, or equivalent, pole straps to fasten the lower bracket to the pole. All other instructions apply to both types of mounted enclosures.



## NOTE:

If you are using an optional battery heater mat, it must be installed before adding the batteries to the enclosure.

## C. Connecting the Batteries

- Place the batteries, with the positive terminals oriented toward the front of the enclosure, on the slide tray. See Fig. 7.
- Use battery cable kit (p/n 875-574-20) to wire the batteries in the UBE together.
- Open the top tray in the original enclosure, following the diagrams on the next page, attach the battery cable kit (p/n 875-574-20) to the batteries. See Fig. 11.
- Connect the two tiers of batteries, and plug the batteries into the power supply.

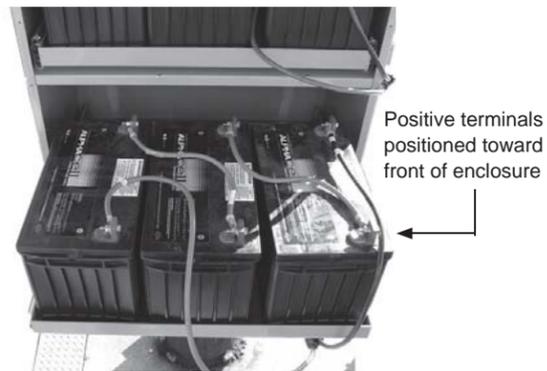


Fig.7, UBE with Batteries, Wiring Cable Kit



Fig. 4, UBE Attached



Fig. 6 Mounting the Lower Bracket for Wood Poles

## D. Completing the Installation

- Mount the new door to the unit. To account for PWE variances, the door mounts with a suspended hinge. See Fig. 8.
- Using the provided cable retainer, located on the inside of the new door, secure the battery cables to the inside of the door and close the enclosure. See Fig.9.

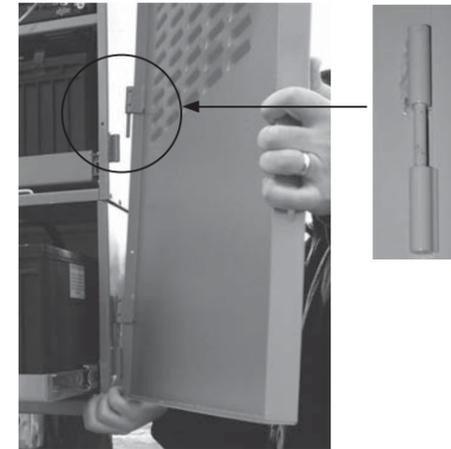


Fig. 8, Mounting New Door with Suspended Hinge



Fig. 9, Cable Retainer



Fig.10, Installation Complete

## E. Installing Optional Features

### Tamper Switch

- If you are using a tamper switch, attach the magnet to the new door.
- If you do not have a tamper switch installed, follow the instructions provided with the PWE enclosure and the tamper switch kit.

### Battery Heater Mat

- Add the heater mat to the bottom of the empty enclosure or optional battery tray.
- Route the cable through the same cable retainer used by the battery cables.
- Plug the line cord into the receptacle.