

# Lectric XP e-Bike Spare Battery Holder, Version 1.0

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My Lectric XP eBike contains a [10.4 Ampere-Hour battery](#). This battery is large and heavy yet nicely contained inside the bike frame. Having a spare battery enables me to double my range, but storage on the bike was a puzzle.

Additionally, I own a [Rockbros](#) “trunk” that straps on my rear rack. The spare battery doesn’t fit in this trunk; if it did, there wouldn’t be room for much else.



My solution was to place my spare battery under my trunk. I wanted this heavy battery to be secure and protected.

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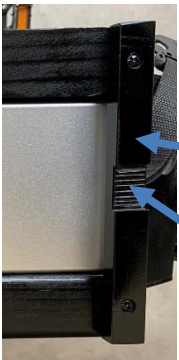


I ripped a 2 by 4 to be the same width as the battery's thickness and cut two lengths. These flank the battery.

Then I cut some 1/2" thick aluminum for cross braces.

The brace on the left is angled to match the end of the battery. It has a hole that engages a pin that extends out of the battery.

I remove the key with the pin extended to ensure that the terminals, exposed on the left end, are not live.



The smaller bar on the right end secures the end of the wood.

Both bars have recesses about 0.1 inches deep and 0.8 inches wide. They engage a strap that I secured to the rear rack.

All of this is cut-to-fit, so it is snug.



The strap in the two recesses prevents the battery from moving forward and back.



I put down a ½ inch foam sheet and place the battery with its frame on top. The foam protects the battery case from scratches plus provides friction. It also lifts the battery enough to permit the trunk straps to pass through.

Then I install the trunk.



The front straps pass between the battery and the rear rack, loop underneath, and fold back onto the trunk. Velcro secures them. A quick tug on these straps releases the trunk.



The side straps pass under the rear rack and into square loops. By folding the straps back under the rack, the trunk is secured.

These trunk straps also lock in the spare battery, so it can't move side to side.



The final assembly is solidly strapped to my bike but easily releases.

I welcome your comments and questions.

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