## Chevy Bolt Trunk Deck Hold Down Strap, Version 1.0

## By R. G. Sparber

Protected by Creative Commons.<sup>1</sup>



I am the proud owner of a 2023 Chevy Bolt EV. With only 1,000 miles on the car, I can't comment on reliability or longevity. I can comment on one minor but annoying problem and how I fixed it.



Under the liftgate is a three-tiered storage area. The top area has a deck with supports near the forward edge plus support at the latch.

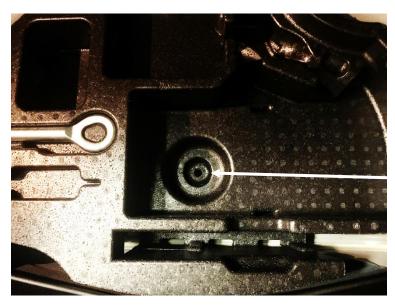
The problem is loading something onto this desk with a center of gravity forward of the side supports. The deck pivots up. You can see what happens here - I've simulated the load by pushing with a 2 by 4.

This problem occurs when I transport my folded e-Bike and recently resurfaced as I hauled a propane tank. In both cases, I needed to anchor them to the steel bales exposed when the seat folds down. As the deck pivots up, things stored in the area below the deck are crushed.

My goal was to find a way to fix this problem that did not cut into the car. I would tolerate around ¼ inch of rise in the rear end of the deck.

R. G. Sparber May 13, 2023 Page 1 of 6

<sup>&</sup>lt;sup>1</sup> This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/ or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.



I removed all of the decks until I arrived at the bottom, where I found a threaded boss left over from the days of including a spare tire.



A tapered disk with a threaded stud secures a block of high-density black foam—kind of overkill but indeed a helpful starting point.

To my surprise, when I put the two decks back in place, I could sight down the two handhold slots and see the edge of this disk. I'd like to believe some designer left this as an "easter egg."

I can anchor a strap under the disk and feed it straight up through the two handhold slots to a homemade plate. That will prevent most of the top deck from tilting.

Now for the details.





I found a 1½ inch wide woven strap about two feet long in my junk drawer. Using a paper punch, I cut a hole near the end and pushed the stud through it.



Then I screwed the disk back in place with the strap positioned towards the car's rear.

## I fed the strap through the black foam cover



and the lowest deck.





The top deck went on next, with the strap passing through its handhold.



I fabricated a plate from 3/16-inch thick aluminum.

I used a 3/16-inch drill and chain-drilled a line. Using a flat file, I then shaped the holes into a 3/16-inch wide by 1¾-inch long slot.

Next, I took some 1/8-inch thick by ½-inch wide bar stock and drilled two 6-32 tap holes about ¼-inch from the ends.

Then I positioned the bar over the slot and drilled through the plate at one end; tapped the plate, and opened out the bar hole for clearance. And finally, I ran a screw through. Then I used the tap drill to make the second hole in the plate and repeated the process. With the bar removed, I drilled down 1/16<sup>th</sup> of an inch with a 3/8-inch drill to make room for the flathead screws.

The two holes in the plate are guaranteed to match the two holes in the bar.



Folding the strap into a loop, I fed it through the slot in the plate and around the bar. Then I loosely secured the bar with flat head screws plus washers between the bar and the plate.

I could then pull on the strap as I slid the strap around the bar.



My goal was to have minimal slack but enough so the plate could tilt and slide into the handhold.



When not needed, the plate and strap sit under the top deck.

I welcome your comments and questions.

Rick Sparber

<u>Rgsparber.ha@gmail.com</u>

Rick.Sparber.org