With every step, a backpack crushes you with up to 8 times more than it’s own weight!!!

**Shock Absorber for school bag/ backpack**

### Development Background

- Heavy school bags can lower children’s school grades. (Source: Spain Granada University Research Team)
- Grade schoolers with backpacks’ weight of 6-11Lb can harm growth of children’s spines.
- Climbing with a backpack is one of the causes of knee arthritis, and on the way down it adds 7 to 8 times more pressure on the actual backpack weight.
- For normal walking, we take 5,000 steps per hour. The backpack adds 3 to 5 times more pressure on each step, even on flat lands.
- Those who carry a heavy backpack as part of their job, suffer from knee arthritis all the time.

### Use

- For pressure reduction of school bag
- For pressure reduction of all kinds of backpack

### Features of GAVIER

- Pressure reduction up to 37%.
- It has specially designed built-in springs.
- While walking it reduces backpack-resulted pressure on the body in areas such as knees and waist. It eases the shoulder pain and numbed arms caused by the backpack.
- It reduces fatigue during activities with backpack like marching and climbing.
- It is easy to use - just attach it to the straps of both sides of your backpack.
- It has a control switch to activate or deactivate the cushioning function.
- It has a range of models for different backpack weights to maximize the pressure absorbing effect.
- GAVIER is a patented product.
GAVIER Instructions

Impact load test results
Free fall Impact load test by 2 inches height with 1 inch webbing straps

<table>
<thead>
<tr>
<th>Weight</th>
<th>7Lb</th>
<th>13Lb</th>
<th>22Lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact load by normal webbing strap</td>
<td>35Lb</td>
<td>66Lb</td>
<td>88Lb</td>
</tr>
<tr>
<td>Reduction ratio by equipped GAVIER 3.0</td>
<td>37% impact reduced</td>
<td>20% impact reduced</td>
<td></td>
</tr>
<tr>
<td>Reduction ratio by equipped GAVIER 6.0</td>
<td>25% impact reduced</td>
<td>36% impact reduced</td>
<td>18% impact reduced</td>
</tr>
<tr>
<td>Reduction ratio by equipped GAVIER 10.0</td>
<td>27% impact reduced</td>
<td>27% impact reduced</td>
<td></td>
</tr>
</tbody>
</table>

- When walking 2-3 inches up and down motion on flat lands, 6-8 inches on stairs.
- The impact reduction ratio can differ depending on walking conditions and backpacks.

Suggested GAVIER model for different backpack weights

- GAVIER 3.0: about 7Lb (ex: backpack weight for grade schoolers or for casual walking)
- GAVIER 6.0: about 13Lb (ex: backpack weight for middle-high school bag)
- GAVIER 10.0: about 22Lb (ex: backpack weight for overnight climbers)
- GAVIER 15.0: about 33Lb (ex: backpack weight for professional climbers)
- GAVIER Veteran: about 44Lb (ex: backpack weight for special agents)

How to fit GAVIER onto the backpack’s strap

1. Open up the covers of GAVIER and affix the backpack strap onto the groove.
   NOTE: the word “GAVIER” should face outward & the ON/OFF switch must be on the upper side.
2. Close the lower cover, then insert and tighten two (2) screws with the Allen wrench provided.
3. Attach the sticker ruler onto the backpack’s strap by having one end to align with the lower cover.
   Straighten the sticker ruler on the strap.
4. Pull the strap back until the other end of the sticker ruler is aligned with the upper cover.
5. Close the upper cover then insert and tighten two (2) screws with the Allen wrench.
6. GAVIER is now ready to use. Repeat the same procedure for the other side.
   NOTE: Remove the sticker so it can be re-used again in the future.

How to use the switch

- Switch ON: Cushioning function is activated to relieve pressure
- Switch OFF: No cushioning function (strap now works like a normal backpack strap)

Applicable Objects

- Webbing strap width: under 25mm (strap width of most backpacks: 18-25mm)
- Webbing strap thickness: 1-2mm (strap thickness of most backpacks: 1-1.5mm)

Notes

- Do not disassemble the product arbitrarily.
- Be cautious when activating the product to avoid finger injuries.
- Avoid handling of the product by children.
- Do not put the product into the washing machine.

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