

How to Install a Rebound string bed onto an existing ACON AIR 16 Trampoline

This procedure is based on the assumption that you are adding string bed to an existing complete trampoline that is completely assembled with a black bed, springs, net and frame pads.

Orientation-

The original black bed uses 140 springs with 24 per end and 46 per side.

The bed is fairly UV protected.

The white string bed uses 104 or 106 springs with either 18 or 19 per end and 34 per side.

The bed is painted with UV resistant paint but the only way to really reduce sunlight damage is to cover the bed with an opaque tarp whenever not in use.

The new bed is also smaller than the original but the springs will still be covered by the ample frame pads.

Neither bed is damaged by water or snow. Nevertheless we would recommend removing the bed each winter.

You will be using the same springs so after the new bed is installed you will have a number of spare springs.

To make assembly easier it is recommended that on one end of each of 106 springs that the gap between the end of the hook and the main coils of the spring be increased to enable easier installation over the plastic bed clips of the new bed. This can be done with a vise and a pry bar. Springs are cold wound so there is no need to heat treat the springs after making this modification.

Before starting leave the enclosure on, but remove most of the frame pads. (Middle side pad can be flipped outward if you work inside the frame.)

STEPS

A – REMOVE OLD BED, MOSTLY FROM THE INSIDE

2) Remove the side springs. This is done by kneeling on the bed and unhooking the springs. If the springs are trapping your skin as they close, you can use a spare spring as a handle to avoid that. Hook it to the existing spring as you pull the spring off the bed. If you have a helper work opposite each other. If you are doing it solo, switch sides about every 4 springs to make it easier, and to ensure that no springs are over-stretched.

3) Remove the end springs. This is more easily done from the outside as the end pads can easily be completely removed. Working opposite a partner is easiest. Again a spare spring as a handle can be helpful. Leave the corner-most spring on until last.

(IF DONE FROM THE INSIDE - Have ONLY one person on the trampoline bed. Remove the middlemost springs, leaving 6 springs on the bed near each the corner. When you move from one end to the other the bed will be very wobbly and hard to walk on. A bit like a slack line. If you find this difficult you can crawl or crouch down so your hands can reach out to the higher bed on each side of you for balance. IT IS VERY IMPORTANT TO STAY ALONG THE MIDLINE OF THE BED WHEN SWITCHING ENDS. Alternately you could just stand between the frame and the bed, at the sides, and remove the final 6 springs in each corner, without going to the other end, but that is more likely to over stretch a spring, so if you do that make sure you use a tool (such as the spare spring previously mentioned) to hook onto the spring ends for this step.)

After the bed is it is time to modify the spring ends.

B – INSTALLING YOUR NEW STRING BED

1) Hook on the 4 corner-most end springs onto the bed, using one spring in each small end clip. If these are angled to go into the widest frame holes the angle will seem a bit radical on the narrower new bed, but this helps support the frame pads in the corner.

2) Hook the 8 corner-most side springs onto the bed. Notice the corner-most side clips have 3 holes in them. Two springs should be installed in the extra drilled holes, and the original central hole should be left empty.

When doing the corner clip installations above, before the spring is installed make sure the corner clip is sitting on the border rope right at the end, just before the knot.

3) Check that the remainder of the bed clips are evenly distributed along the border ropes, as sometimes when the bed is folded or during assembly they can be displaced.

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WHEN YOU INSTALL THE REMAINDER OF THE SPRINGS YOU WILL SKIP SOME SPRINGS ON THE FRAME. So you get a choice on where the springs hook onto the frame. The concept is that ideally the springs should either be at 90 degrees to the frame, or angled so that the frame end of the spring is further from the centre than the bed end. In this way most of the angled springs are aiming somewhat towards the centre, a bit like the orientation of the springs on a round trampoline.

4) Install the rest of the end springs ideally moving from one corner towards the other to apply tension to the bed symmetrically without getting too far ahead of each other. This is probably done easiest from outside of the frame. To get good angles you will need to skip 5 or 6 of the frame holes depending on whether your bed has 19 or 18 clips per end. If the angles look weird when you finish just move a few springs to get an equal pattern before doing the remainder of the side springs

5) Install the rest of the side springs. This can be done as in step 2 for removing the bed, with or without helpers. For the bulk of the sides, except in the corners, the pattern is 2 springs in frame holes, then skip a frame hole. So to get it right start in the middle of the bed and put the two middlemost springs on the two middlemost frame positions, then skip one on each side and use the pattern. In the corners you will skip less often or not at all to make it look right.

Now that every bed clip has one spring on it (or 2 as in step 2 above) you should have 106 or 104 springs on your bed. 18 or 19 per end and 34 per side.

Check for symmetry. This would be from the middle outwards and opposite each other on both sides and ends.

Next install the webbing rectangle to limit frame pad flop. (If you purchased one) by hooking the rings to the corners* with the short springs, and putting the foam wrap around the 8 corner-most springs to supply lift to the webbing rectangle.

* To avoid drilling holes in the corners of your frame you can create an attachment with some utility cord or an old shoe lace. Tie the cord into a loop that is barely long enough so when looped around the frame and back through itself there is just enough room to hook on the spring.

Re-install the frame pads.

INSTALLATION IS COMPLETE.

YOUR NEW BED WILL BE MUCH MORE POWERFUL THAN THE ORIGINAL BLACK BED. If you are not accustomed to bouncing on powerful trampoline beds, spend plenty of time getting used to the new rebound, particularly when returning to your feet from falling off your feet. Also do not immediately use the extra height to try more difficult skills. Learning new skills should be a very controlled and gradual process. Inverted skills are potentially dangerous and should be learned with a coach.

In addition, due to the extra power it is even more risky to have, the forbidden, more than one person on the tramp at a time. If the extra people were used to increase your bounce, also forbidden for safety reasons, the bouncing person could depress the bed right to the ground!

Also be aware that after a wear in period of about 30 hours of use your bed will increase in power. This is due to the cracking of the paint, so your bed becomes gradually more flexible.

As you will probably be jumping much higher with your new trampoline, the springs will be stretched further and may need to be replaced every few years.

PROTECT YOUR INVESTMENT AND YOUR SAFETY – String beds are damaged by sunlight. If you cover your bed with an opaque tarp when not in use, the sunlight damage should be slower than the mechanical wear which is about 8 years of Institutional use. It would only last 1.5 years of Florida sunlight uncovered, so don't think being in a shady area is good enough!

Read your string repair and maintenance/re-painting instructions.