



LET'S RUMBLE

Hack your couch to give you a kick in the pants.

By Craig Engler

Bass shakers are like the rumble packs in a Playstation or Xbox game controller. They make whatever they're attached to rumble when they get a signal from the LFE (low frequency effects) channel of your audio system. That means when the T-Rex puts its foot down in *Jurassic Park*, you don't just hear it ... you feel it.

You can buy an \$800 shaker system from a commercial outfit like ButtKicker or Clark, or you can put the components together yourself for as little as \$30. I've done it both ways, and I like the \$30 results better. That cost assumes you have some speaker wire and an old receiver or amp around. If you don't, plan on spending another \$50-\$100 for a used amp or receiver, plus \$10 on speaker wire at RadioShack.

You can get the shakers at partsexpress.com or on eBay. When I bought mine, a pair of Aura Bass Shakers was going for \$30, and the pro model was about twice that. People who've used both report little difference, so don't worry about buying the cheap pair. (I happen to have bought the pros before I found this out, so the ones shown here are the pros.)

For the receiver, make sure it puts out the necessary watts per channel (25 for the Aura, 50 for the pro) and you're set. Any speaker wire should do. You'll also need an RCA "Y" splitter and cable, which together run about \$6.

Prepare to have many moving experiences with your bass shakers.



On my home theater chairs, I decided the best place to mount the shakers was on the back of the frame, underneath this flap.

Eyeballing it, I can tell the shaker will fit, but I'll only be able to fasten it with two screws. Ideally, you want to use four screws.



Use the RCA splitter on the subwoofer out line of your primary receiver. This way, you can send the signal both to your subwoofer and to the receiver you'll be using to power the shakers.

Once you've got your parts in hand, start by installing the shakers in your seating. One per chair is a good rule of thumb. If you have a couch, you may want more, but I'd start with one and see how much shaking you get. I didn't notice much difference in my three-seater couch whether I had one or four installed. I settled on two because a) I had extra shakers and b) I thought it might

even out the shaking effect more.

You can attach the shakers to any surface you can get four screws into, but you'll get the best shaking if you can fit them onto the longest part of your seating that's suspended between two points. On my couch, that was the piece of wood that ran the length of the seating, between the legs on either side. I had to pull off the underlining of the couch to do it, and then I used a staple gun to put the underlining back on after running my wiring.

If you're only using one shaker, make sure to center it, otherwise you might feel the shaking more on one side than the other (in other words, don't put them in the arms of your couch or chair). With multiple shakers, spread them out as evenly as possible. If you really can't find a place to screw them in, you can also use zip ties and attach them to the seating springs, but that won't transmit the shaking effect throughout the whole seat as efficiently. Still, in a pinch, it's a quick and easy solution.

Next, hook the shakers up. Start by splitting the RCA wire going to your subwoofer with the RCA "Y" splitter, and run the split signal into your



In the end, I mounted two shakers to each of my chairs. When I centered just one shaker on the frame, it hit

the reclining mechanism of the chair when I leaned back. By using two equally spaced, I avoided hitting the

reclining gear and also made sure both sides of the chair receive equal shaking.



Here's the subwoofer out line on my receiver. Sometimes this output is called the "LFE out," which stands for "low frequency effects."

amp/receiver with the RCA cable. Then, hook up the shakers to the amp/receiver's speaker outs with the speaker wire. The only trick here is whether to wire them in series or in parallel, which depends on how many shakers you're using. The instructions will tell you, or you can read the excellent "bass shaker" thread on the Home Theater Accessories forum at avsforum.com. I'd

recommend reading that thread in any case, as it's full of good tips and information for troubleshooting and modifications.

The rest you know how to do: Stick a DVD in your player, press play, and start watching a movie. When the explosions begin, your seat should respond with a perfectly synchronized rumble. You can control how much rumble you get with the volume control of your amp/receiver. I find the effect is best when it's subtle, so you can't quite tell if you're feeling your subwoofer or the shakers. But if you want your teeth to rattle, just pump up the volume.

To demo your shakers, I recommend the lobby and helicopter scenes from *The Matrix*, just about any scene from *Black Hawk Down*, the beach landing in *Saving Private Ryan*, the battle scene at the end of *Lord of the Rings: The Two Towers*, and my personal favorite, *Das Boot*. Also, make sure you don't tell your friends about your shakers before you invite them over. I find it's best to let them discover the shakers on their own.

Craig Engler's writing has appeared in publications ranging from *The New York Times* to *Wired*.