

## Why do keys stick?

One of the most frequently asked questions is “how much does it cost to repair a sticking key?” If there was just one reason for a key to stick, there would be one answer. But there are a lot of different reasons why keys stick. Here are just some of the more common ones.

**Tight bushings:** A key is like a see saw. When the front of the key is pressed down, it makes the back of the key go up, which then sets in motion a bunch of levers which eventually makes the hammer strike the string. On the underside of each key, right where a finger hits the key, is a square hole. On the sides of that hole are two small pieces of felt. The two pieces of felt ride on a pin that is attached to the piano. That pin keeps the key from moving from side to side as it goes up and down. During very humid weather, the felt swells and rubs against the pin. It is a relatively easy procedure to squeeze the felt, called “easing”, to make the key work better. There are also bushings the center of the key, called the balance rail, which are right behind the fall board, which need to be “eased“. However, as in all repairs, sometimes it does get a little more complicated, and the key has to be removed to be eased, which can cost anywhere from \$10 - \$75

**Corroded Keys Leads.** Inside most keys are little leads weights, call key leads, about half an inch in diameter, which have been inserted in the key. The leads are there to help balance the key, and make playing them smoother. In Hawaii, the salt air and high humidity has caused the key leads to corrode and expand. Because the key leads are in the same place on each key, they expand to the point where they rub against each other, which causes the keys to stick. There are two ways to fix this problem. One way is to cut off the excess lead, and even drill them out below the side of the key, and seal the lead with shellac, which slows further expansion of the lead. The cost of doing this procedure is about \$350. The other way to solve the problems is by removing the old leads and replacing them with new ones. Replacing key leads is about \$650.

**Foreign objects,** such as coins, pens, paper clips, etc, can easily fall in between the keys or behind the fall board. Sometime it is very easy to remove them, and there is no charge. But sometimes the action needs to be taken apart to remove the foreign object, which, depending on the action, can cost anywhere from \$10 - \$50.00.

**“Wild life”.** The droppings, nests and remains of carpenter ants, cock roaches, mice, termites, geckos, etc. have been found in between and under the keys and inside the piano. These animals can wreck havoc in a piano. Sometimes the droppings and eggs can be removed with relative ease, but carpenter ants leave a sticky tar like substance that can only be removed with a chisel. Vacuuming and cleaning under the keys can cost between \$50 and \$150.

What might add to the cost of making these repairs is the replacement of parts that are damaged or deteriorated. Two of most common parts that need to be replaced are grommets and bridle straps

**Grommets** are little round rubber donuts at the back end of the keys in some spinet

pianos. When these grommets become brittle because of age or having been peed on by small critters, they need to be replaced, which costs \$200.

Another part that is often deteriorated on uprights are the bridle straps. See the link on **Replacing Bridles Straps** for an in depth explanation on bridle strap replacement, which costs \$175.