

Upright Damper Installation

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Seattle PTG

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(Prossers)

General Information

- *Glue.* Insert the wedge damper felts into the strings, squeeze a little Titebond glue onto the back of the felt, then slide the felt down to the block. Every time hide glue is re-used, its strength is reduced; consequently each batch must be thrown out after its use. Dampers require so little glue that it's not worth the time to mix up hot hide glue.
- Set *samples* first. Put on one felt for each section – completely installed and adjusted – before installing all the dampers.
- The *strike point* is the optimum point to dampen a string. This is not possible on uprights. Get the damper felts as close as possible to where the hammer strikes; use nippers to cut off the corners to prevent the hammers from rubbing against the damper felts.

Selecting the damper felts

- **Bass dampers.** Roger uses standard Schaff felt strips. He feels that overall, the best felt is Yamaha. Jeannie uses the longer Renner bass damper wedges. For the flats she makes her own and makes them longer. The Laroux dampers come in shorter lengths for consoles.
- **Tenor dampers.** Roger uses the long strips of tri-chords. He found that with the narrower style only two of the three strings would damp sometimes; to get these to damp all three strings, he would have to either (a) squeeze the felt, or (b) deepen the middle slit with a razor blade. Since this was extra work, he chose the wider trichord damper strips.
- One option is to glue square felts for grand dampers to the block. If these are too thick, the back of the damper block might hit the damper stop rail. In this case, either sand the blocks thinner or adjust the rail back farther.
- When people glue the felt on the damper head, the sewn piece should be retracted in so the damper touches the strings on two points. Roger made a gluing block as a jig to punch the felt in while it's drying; it is a small rectangle of wood with a thin dowel glued across the center.

Removing Old Dampers

- Sanding. Roger removes all the damper levers
- Wallpaper remover & water.
- Alcohol &

Pre-Adjustment

- Adjust the dampers before gluing the dampers on. If you don't do this you will have problems, particularly in the bass. Either the damper felts will be resting too

far left or right, forward or backwards, or tilted forward, backwards, or to one side. Adjust the wires first.

- Check the string spacing.
- Lift the dampers by blocking the damper lift rod. Roger uses various thickness of wood as a gauge between the damper block and the string to determine how far to pull the damper block forward or backward. From the side, sight up whether or not it is straight.
- Put one felt on. Check that the lift is reasonable on note play. Adjust them for the thickness of the flats.
- Put in a trichord and determine the distance.
- In the bass, install a stock damper in the mono- and bi-chords and adjust the wires, with the damper rod lifted.
- Go back and forth until the all line up straight, as close as possible.

Installing Damper Felts

- Spring clamp with jigs. The dampers have already been removed from the action for sanding off the old felt & glue.
- Rubber bands can be used either on the bench or still in the action.
- In the piano. Let the pressure of the damper springs press the new damper felts against the strings.
- Always glue the bass dampers with the action in the piano. Make sure to check the string spacing and the damper wire adjustments first before gluing these felts to the blocks.

Damper Springs

- Bass damper springs are stronger. Roger stopped distinguishing.
- Damper flanges with springs are quick for one or two, but are expensive.
- For a whole set, use damper cord.
- Repair springs can be screwed on, but they can move around.

Tri-chords

- Roger has already *spaced the blocks*, made sure they were tilted right, and glued all the felt on. Now, how close is the adjustment?
- If this were a piano with *new hammers* on it, this would be easy because the string positions can be moved around. However, with old hammers the strings need to stay in the same positions so the hammers continue to strike in the same place.
- The *string height* is adjustable, so that both the hammers and the dampers strike all three strings equally.
- If one of the outside strings rings a little with the tri-chord dampers, *squeeze the felt or deepen the center slit*.
- *Pluck* each of the three strings and listen for sound leaks. This usually happens with the narrow tri-chords. If there is a leak, lift the damper pedal and pluck just to see if the problem is the string. Look to see if the string is not spaced properly.

- With duck bill pliers, squeeze each of the wedge sections, very gently, on the side that's damping to narrow it.
- The opposite of cutting a deeper slit in the damper would be to insert a thread or soft cord in the slit to widen it.
- After a few weeks the tri-chords will start seating in and will sound better. When adjusted properly, they dampen much better than flats.
- Roger goes at least six notes up the tenor from the bass with tri-chords.

Spoons

- Clean the spoons with Brasso.
- For a while, Story & Clark and some Aeolians used an acid in the damper lever felt; this eventually ate away the plating on the spoons and left them pitted.
- Watch for moth-eaten felts. Replace.
- **Adjust the spoons** after the damper felts have been installed.
 - Get a whole collection of spoon benders – at least a half a dozen – with some ground down, some thin, some curved, etc. so that the spoons can be accessed from any angle on any style of piano.
 - Stick the tool in. See and feel carefully what it takes to get the adjuster attached to the spoon. Tip the action back to see how it works.
 - Adjust for half-stroke on the hammer.
 - Hold the tool firmly and pull the whippen up and down.
 - Use the straight adjuster tool, tip the action back, adjust the spoon, tip the action forward and test it. Do one at a time. If you have to do all of them it might take about thirty minutes. Often, however, the spoons might turn out to be fine.

Timing

- Put a rag on the top of the piano for a head rest, and look down inside. Push the pedal lightly up and down and see which lift earlier and later.
- Adjust the damper wires with a standard right-angle tool.
- Adjusting the timing might take about thirty minutes.