

PETERSON

MASTER TOUCH™ KEYBOARD ASSEMBLIES

INTRODUCTION

Peterson Master Touch™ Keyboards are designed to have the quality "feel" that organ builders and organists expect in a quality instrument. The mass loaded key and tracker touch toggle action meet A.G.O. recommendations. This is accomplished using precision machined and tooled parts throughout. The brass and stainless steel "roller action" bearing eliminates bushings that wear out and need adjustment. There is no chance for warping or twisting of the keys or frame under any conditions of age, temperature or humidity. This means the keys and contacts never need re-adjusting.

INSTALLATION INSTRUCTIONS

MASTER TOUCH™ KEYBOARD ASSEMBLIES PURCHASED WITHOUT KEY CHEEKS OR KEY SLIPS.

REFER TO FIGURE #1, PAGE 2

Position your key cheeks in the desired location against the side mounting brackets of the keyboard assembly. The easiest way to do this may be to stand the keyboard on its end on top of the keycheek. Never lift the keyboard by the front edge of the keys. Drill pilot holes through the holes in the side mounting brackets into the cheeks. Use a 5/64" (or #48) drill for soft wood. Use a 3/32" (or #40) drill for hard wood. Install the three #8 x 1" long slotted hex washer head sheet metal screws (shwhsms: supplied) through each side mounting bracket into the key cheek.

The spacing between each key cheek and the adjacent key is adjustable by loosening the screws that hold the side mounting bracket to the keyboard. Re-tighten these screws when the cheeks are spaced properly from the keys.

Loosen the screws that hold the rear mounting bracket to the keyboard. Adjust the position of this bracket so that it is against the key cheek, then re-tighten the screws. Drill two pilot holes of the proper size (see above) and install two #8x1" long shwhsms through each rear mounting bracket into the key cheek.

To mount the key slip, prepare a spacer (or spacers) 1-9/16" (minimum) x 3/4" (maximum) x desired length. Spacers 1-1/2" long in four places will provide clearance for pistons. Mount the key slip to the spacers. Remove the two screws holding the front edge of each side mounting bracket to the front mounting bracket. Assemble the slip to the keyboard by installing 8 pcs. #6 x 1/2" long shwhsms (supplied) through the front (and side) mounting bracket holes into the spacers. The pilot hole size for a #6 sheet metal screw is 5/64" (#47) for hard wood and 1/16" (#52) for soft wood.

KEYBOARD REMOVAL

REFER TO FIGURE #2, PAGE 3

For Master Touch™ Keyboard assemblies purchased with a key cheek and slip assembly, the keyboards may be removed from the key cheek assembly as follows: **Caution: Be very careful to protect the silver contacts from being damaged during keyboard removal.** Manuals must first be separated by removing the hinge screws. A second person's assistance is recommended. Numbers in front of each step refer to the corresponding number on the drawing.

1. Remove keyslip.
2. Remove the four (4) screws holding the keyboard to the front brace "A".
3. With the keyboard laying flat (keys up), remove the rear three (3) screws going into brace "B". If the keyboard has toggle touch, it will be necessary to remove three of the toggle springs to allow access to the screws (replace springs into their corresponding positions after the screws are removed).
4. Lift up the rear of the keyboards about 3 inches, being careful not to let the keyboard channel slip completely off the front brace.
5. Holding the keyboard at the rear sides, carefully back the keyboard off the front brace "A" and remove the keyboard.
6. To install a keyboard, reverse the procedure, being careful not to let the sides mar the finish on the cheeks.
7. If the keyboard is shifted to one side, loosen the seven (7) screws holding the keyboard, re-position, then re-tighten.

ADJUSTMENTS

REFER TO FIGURE #3 (PAGE 4)

Master Touch™ Keyboard assemblies are completely regulated and adjusted for "feel" at the factory. The keyswitch contact speak point is also factory set to "make" at 1/3 of the key travel. Should it ever become necessary to re-adjust the "feel" of a key, the following information will be beneficial. The numbers in front of each step refer to the corresponding numbers on the drawing.

1. Toggle point adjustment will have the greatest affect on the toggle feel. This is also the most likely adjustment to be affected by shipping and handling. The adjustment is made by rotating the 1/4" hex adjustment screw. Rotating it counter-clockwise will give more toggle and clockwise will give less. Raising the spring too high may cause it to go over center when the key is pressed and the key may not return.
2. Toggle spring: These springs are guaged for tension at the factory and should not need to be changed, the tension of this spring will affect the amount of toggle. More tension (spreading the spring) will give more toggle.
3. Toggle tension adjust will adjust the toggle spring tension by groups. This should not need adjusting unless the entire keyboard feel is to be changed. Adjustment is made by slightly loosening the mounting screws and then using a straight blade screw driver in the adjustment slot as a lever to increase or decrease the tension as required. Then re-tighten the mounting screws.

4. The upper return spring mount has been factory set but can be adjusted to lighten the return of the key by pushing the mounting tab down. Caution should be used in making this adjustment because small increments of change, such as 1/64", will make a significant difference.
5. The lower return spring mount has been factory set but can be adjusted to increase (speed up) the return of the key by pushing this mounting tab down. Use caution as in Number 4 above.
6. Return springs should not be adjusted. If any of these springs come off or are taken off it is important to put them back on correctly. **Note:** *There are two different types of return springs, one for naturals and one for sharps. Be sure the end loops are on the mounting tabs correctly by comparing them with ones on neighboring springs.*
7. Key leveling adjustment can be made if a key becomes uneven in height with respect to the other keys. This is done by bending the tab for the up/down stop of the uneven key to bring it back in line.
8. Speak point adjust is pre-set at the factory so that the contact will "make" at 1/3 of full travel. Should it become necessary to re-adjust the speak point, use a 1/4" nut driver to turn the hex pusher attached to the key. **Caution:** It is necessary to bend the shorting plate piece out of the way to get the nut driver over the pusher (see Detail "A"). Care should be taken in doing this because the silver wires can be bent out of shape easily. The phosphor bronze shorting plate however is quite resilient.

KEY REMOVAL AND REPLACEMENT

REFER TO FIGURE #3

If the playing surface of a key becomes damaged and needs replacing, it is not difficult to do.

Natural Key Removal:

1. Remove the keyslip.
2. Remove the toggle spring (2) by compressing it with your fingers. (Do not over compress as the spring tension can be changed).
3. Remove the return spring (6) by unhooking it from the lower return spring mount using a Peterson key removal tool, needle nose pliers, right angle scribe, or screwdriver.

Note: *Be sure the return springs do not get mixed up as there is a difference between springs for sharps and naturals.*

4. Lift up on the back of the key while pulling forward to slide the key off of its roller bearing. (See arrow for direction of key removal)
5. Once the key is free in the back a similar motion of lifting the back up and pulling forward is required to clear the pusher and the up/down stop.

Sharp Key Removal:

When replacing sharp keys, it is necessary to remove adjacent natural keys. Follow the steps above for removal of both the natural keys and the sharp keys.

KEY REPLACEMENT

1. Hook the return spring (6) on to its mounting tab (4) on the key (if both sharps and flats were removed be sure to use the correct spring).
2. Slide the up/down stop (7) into the channel on the keyboard chassis, while guiding the pusher into its hole.
3. Push the back of the key onto its roller bearing in a direction opposite that of the key removal. Be sure the key is fully seated on its roller bearing by firmly pressing with your thumb over the pivot point.
4. Hook the bottom of the return spring on the lower return spring mounting tab (5) using a right angle scribe, screw driver, or needle nose pliers. **
5. Install the toggle spring (2) by compressing between the mounting plate and adjusting screw. (Do not over compress as the spring tension can be affected).
6. The only adjustment that should be required after changing a key is to reset the toggle point adjustment. Refer to step 1 of Adjustments.
7. Replace the key slip.

** Note: A custom made "Spring Tool" is available from Peterson. Order part number 500099.

Note: If the Master Touch™ Keyboard assembly is mounted where it will overhang the keybed, some consideration might be given to a bottom cover plate that will keep curious fingers away from the silver contact wires.

IN CASE OF DIFFICULTY

PETERSON recognizes the importance of giving good customer service. Providing comprehensive support to the customer after the sale has given us a fine reputation in the industry. If you experience any difficulty with the swell shade operator, please contact the factory for technical assistance. ***A simple phone call may save much time and money.*** Our phone numbers are 1(708) 388-3311 and 1(800) 341-3311 (Toll Free).

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FIGURE 1

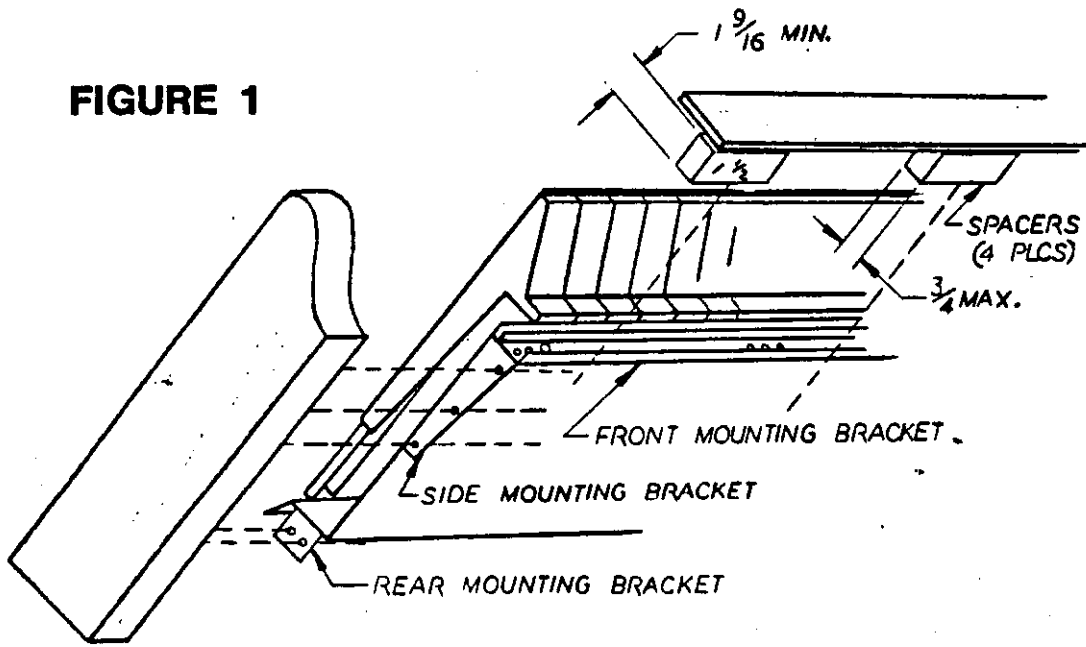


FIGURE 2

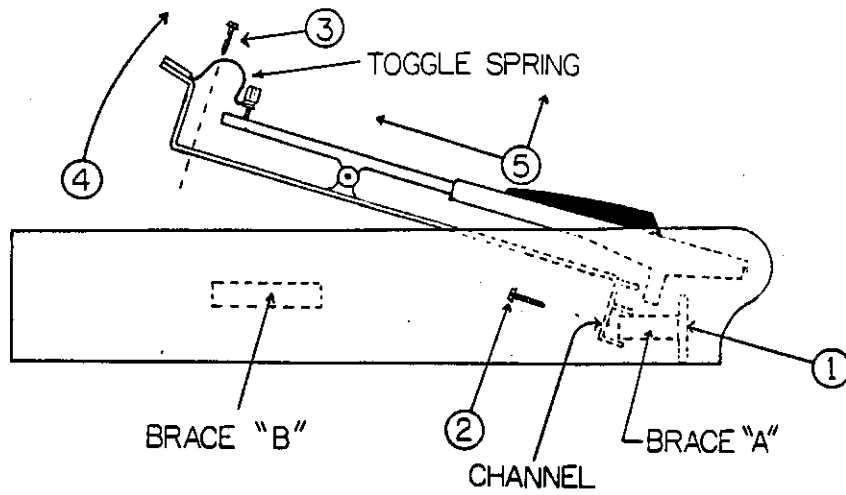


FIGURE 3

