How to modify older, one-octave Hammond pedals for normally-open contacts

Written By Howard Cano
Page Layout By Terry Goyette

You will need two 1/8" diameter dowel pins 3/4" to 1" long. These are available at your local hardware store.

You'll also need a 1/4" hex driver, wire clippers, longnose pliers, and a flat screwdriver.

FIRST:

Remove the cardboard contact cover using the 1/4" hex driver.

Use the clippers to remove the BARE wires that connect between each pedal contact and the contact for the next pedal. Discard the wires.

Use the pliers to remove the felt insulators running between the contacts. Discard the felt insulators.

REPEAT THE FOLLOWING FOR EACH PEDAL CONTACT PAIR:

Photo 1

There is a #6 slotted head screw that holds a rectangular metal piece having two 1/8" diameter holes in it and measuring about 3/8" by 15/16". Use the screwdriver to remove the screw, metal piece, and the brown insulating spacer below the metal piece (Photo 1).

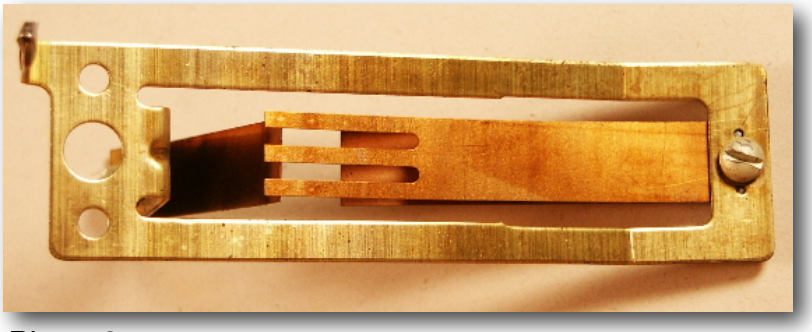

Photo 2

Lift the large brass contact (Photo 2) and small copper-bronze contact (Photo 3) clear of the metal frame. Remove the two small and one large brown insulating spacers (Photo 4) that are sandwiched here. Discard the large brown insulator.

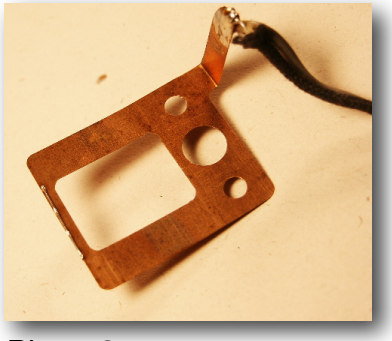

Photo 3

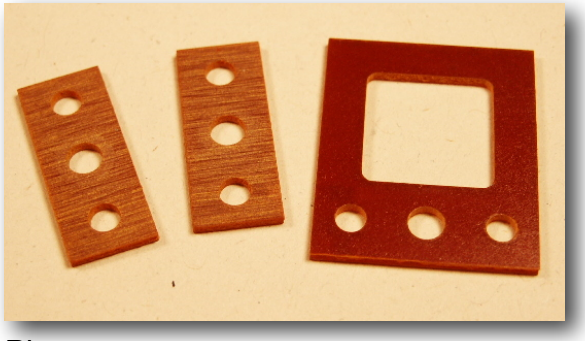

Photo 4

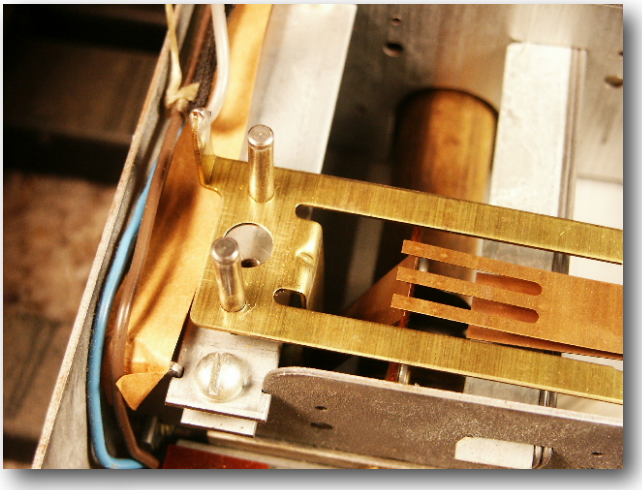

Photo 5

Place the large brass contact back against the frame and push a 1/8" diameter dowel pin through each end hole in the contact and into the matching hole in the metal frame to locate it in the proper position (Photo 5).

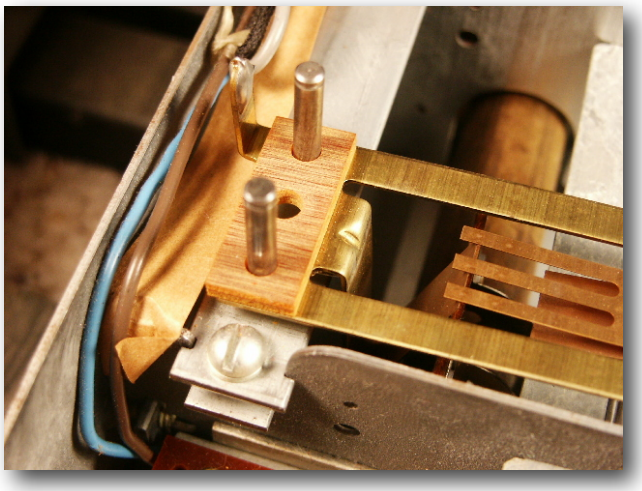

Photo 6

Place two small brown insulating spacers over the dowel pins (Photo 6).

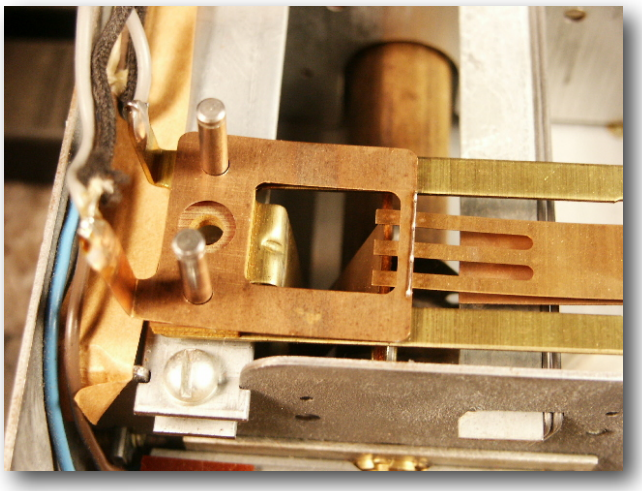

Photo 7

Place the small copper-bronze contact over the two dowel pins (Photo 7).

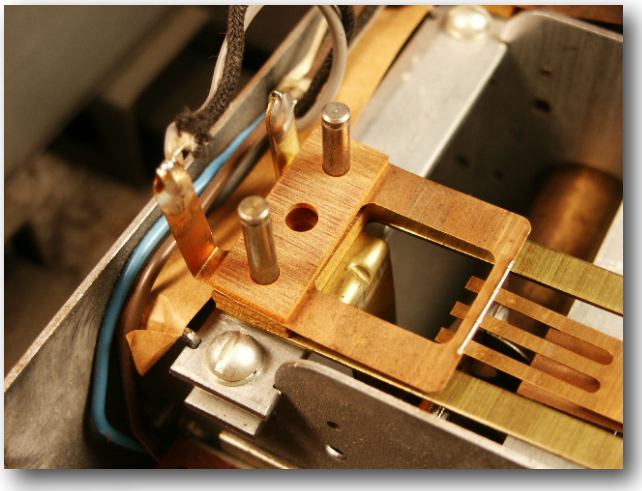

Photo 8

Place one small brown insulating spacer over the dowel pins (Photo 8).

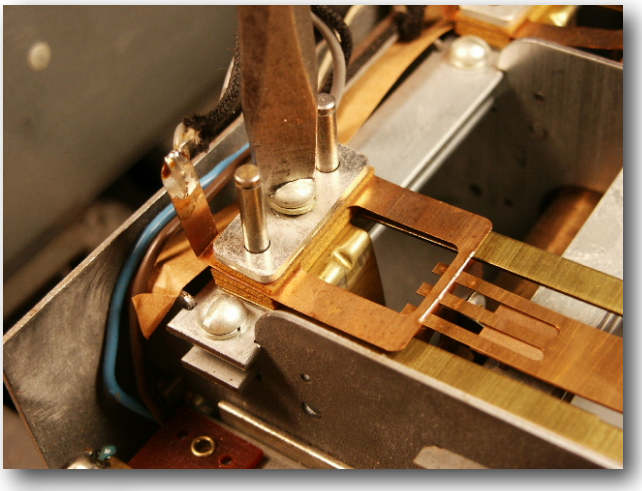

Photo 9

Place the rectangular metal piece with the #6 screw over the dowel pins and tighten the screw to hold everything in place (Photo 9).

Remove the dowel pins using your FINGERS ONLY-- DO NOT USE THE PLIERS, as this will scratch the dowel pins and make them even more difficult to remove when you modify the next pedal contact. If they are bound in place, a few light sideways taps back and forth with the handle of the screwdriver will loosen them up.

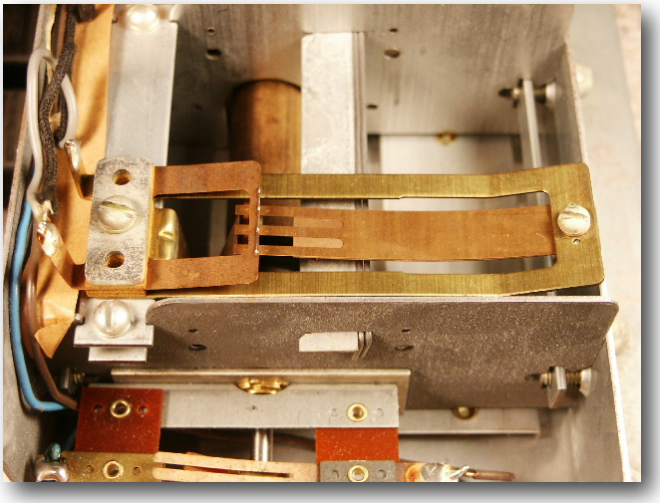

Photo 10

Gently bend the small copper-bronze upper contact slightly up (away from the lower contact) so that the contacts will touch each other when the pedal is depressed about half-way down (photo #10).

Repeat the above process for each pedal.

(Continued)

LAST:
The copper-bronze contacts will connect to the pedal inputs on the Cygnus MIDI Adapter, and the metal frame will connect to the frame ground connection on the Cygnus MIDI Adapter. You can use the wires already on the pedals if you like, BUT you will need to unsolder the wires that connect to the brass contacts on each pedal and resolder them to the small copper-bronze contacts. The E, B, and high C small copper-bronze contacts are already wired. It's easiest to start at the B pedal and work your way down, removing the wire from the large brass contact on each pedal and connecting it to the small copper-bronze contact ON THE NEXT LOWER PEDAL. When you are done, you'll have a wire for each pedal PLUS a wire connecting to frame ground at the brass contact on the low C pedal.

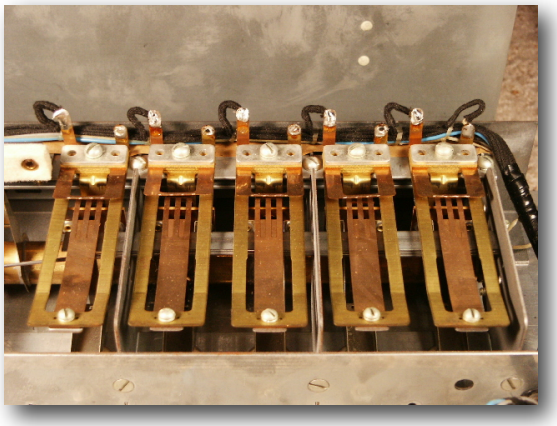

Photo 11

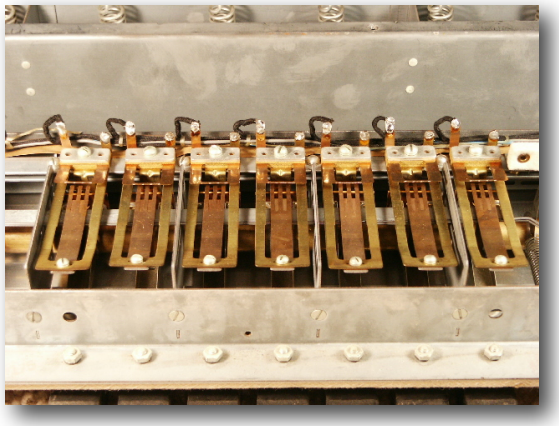

Photo 12

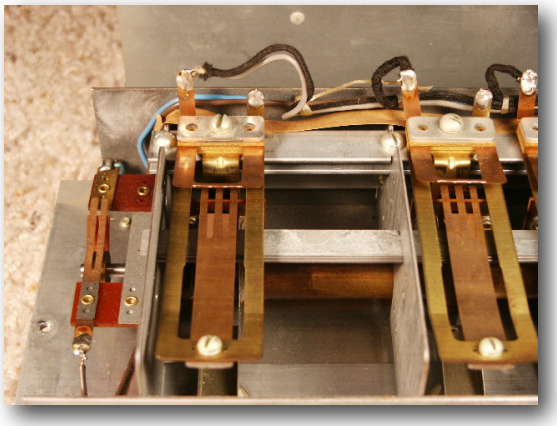

Photo 12

Photo 11 shows the final appearance of the wiring on the low C through E contacts, Photo 12 shows the wiring for the F through B contacts, and Photo 13 shows wiring for the B and high C contacts.

Use an ohmmeter or continuity tester to find which wire connects to each pedal, and make sure all the contacts make to frame ground when the corresponding pedal is depressed. Now you are ready to connect the wires to your Cygnus MIDI Adapter!