

Links to Rebuilding Push Button Switches

"Touchy" business Part 1: <http://www.1962to1965mopar.ornocar.com/images/Touchy1.jpg>

"Touchy" business

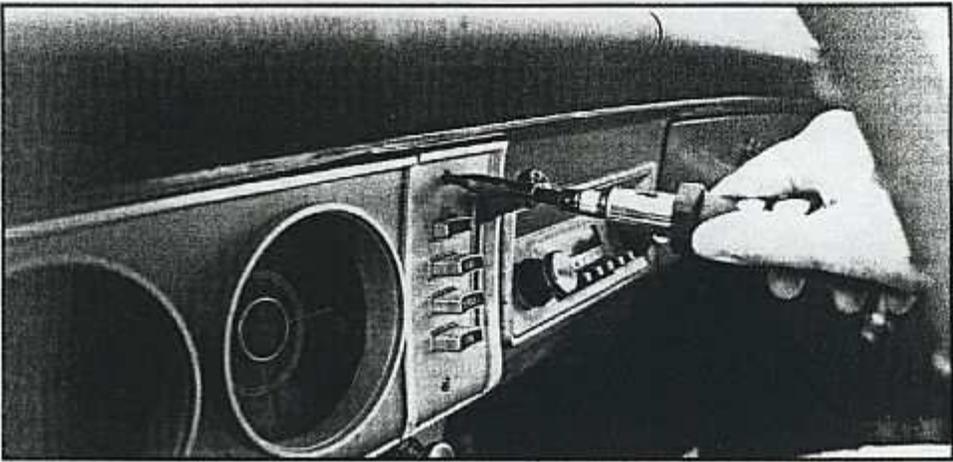
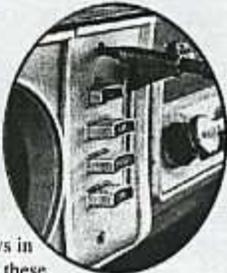
*by Wally Breer
'63 Tech Advisor
Mitchell, Manitoba*

"Ah, buttons, buttons--just love them buttons!"

What buttons you ask? Heater and transmission range selector buttons of course! Well, actually just the heater buttons. The ravages of time show up in various ways in our vehicles and whether it's just maintenance or a restoration, we must deal with these ravages of time in the same way. A specific example is (as stated) the heater switch assemblies on the '63 Plymouths or the Canadian Dodge. Actually what I'm going to discuss is applicable to all heater switch assemblies from 1959 to 1964.

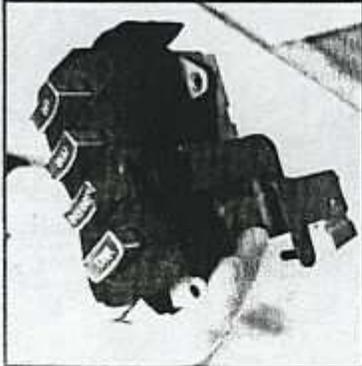
With time, the buttons have a tendency to become sluggish to the point where some times (or every time) one must resort to the pull-push method of button actuation--you must pull out the button pressed previously before pushing the button you want. Believe it or not this problem has a remedy other than for locating an NOS unit as a replacement.

In short, the remedy consists of simply opening up the push button assembly and repairing, cleaning and relubricating the assembly. Some detractors may claim that, due to the fact that the switch assembly is closed with melt down pins, any repair is doubtful. This is not true! Just follow the photos.



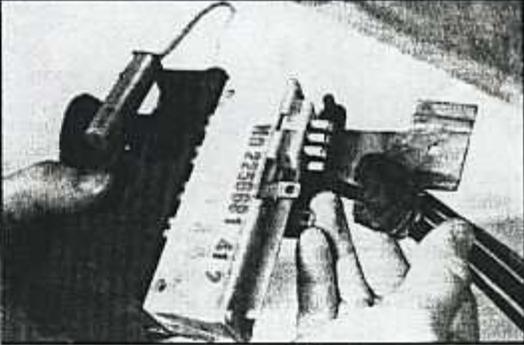
Removal

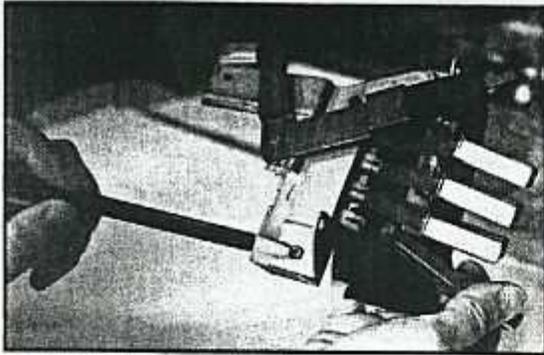
Use your service manual as a guide to removal. The '59 unit is by far the most difficult to remove but, to generalize, it usually entails removal of the instrument cluster. Follow the instructions carefully, don't force anything and study the assembly before proceeding and you shouldn't have any problems.



The assembly is out

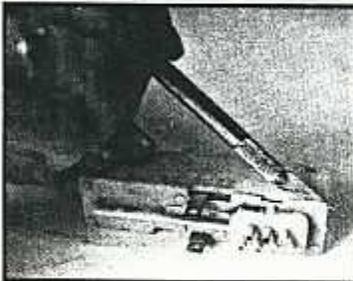
Shown here is the '63 assembly removed together with the support and heat control slide assembly. The vacuum harness





is attached with a simple clip and only goes on one way. Remove the buttons and separate the switch. The buttons are simply "pulled" off and the switch assembly is held on with two screws (this is pretty well a standard arrangement).

Opening the switch



Open up the switch assembly by cutting the melted pins with an Exacto knife. Note all the internal parts for reassembly. Now is the time when you'll find that you either have damaged slides or just ones "glued"

together by old lubricant. Clean with a mild petroleum solvent such as Varsol; clean the rubber vacuum guide located in the back plate with alcohol to avoid damage.



A trick

If you've found the individual slides glued with old lubricant, you should have them cleaned and dried. Then simply relubricate them with Lubriplate and reassemble.

Now, here is where it gets a bit tricky. Remember those pins you cut off? Well, you now need to replace them with screws--#4 x 1/2 inch. Carefully drill into the housing to provide holes for flat head screws. Common sense is obviously necessary to avoid going through the front of the housing. (I use #4 Robertson flat head screws to secure the back cover. Regrettably, Robertson screws are not available in the U.S., so use Phillips or TORX equivalents if you live stateside.)



You're done... maybe

Reassemble the switch assembly and screw tight. It's a good idea to take your "rebuilt" switch out to the car, hook up the vacuum lines, start the engine and try it before final installation. If all is well and the switch operates as it should, reinstall and you're done!

What do you do if the slides inside are damaged? (Usually this is caused when a sluggish set of buttons is forced). The answer here is to make new ones which can be easily done by cutting them from Textolite sheet stock. Your old ones can be used as patterns if they aren't too "munched." If they have taken a beating you will have to redraw the "peaks etc. on the new sheeting in order to cut out the new ones. The designs are simple and any damaged area can easily be drawn in. Finding textolite in some areas may be a bit of a challenge, but any major industrial supply house should be able to obtain it. It is available in various thicknesses so be specific and measure your sample with an accurate vernier caliper.

In the book

Have fun! And remember, if you have any problems check the front cover of your BULLETIN! I'm in the book!

PH

This Heater Control Vacuum Switch is from a 1964 Plymouth Fury.

This procedure should work on most switches.

Pop Rivets and JB Weld were used to repair this damaged switch with three broken vacuum ports.

The second port of the top row is barely hanging on.

Switch1.jpg



Switch after carefully removing plastic “buttons” that secure the top plate/cover to the switch body by using an Xacto knife.

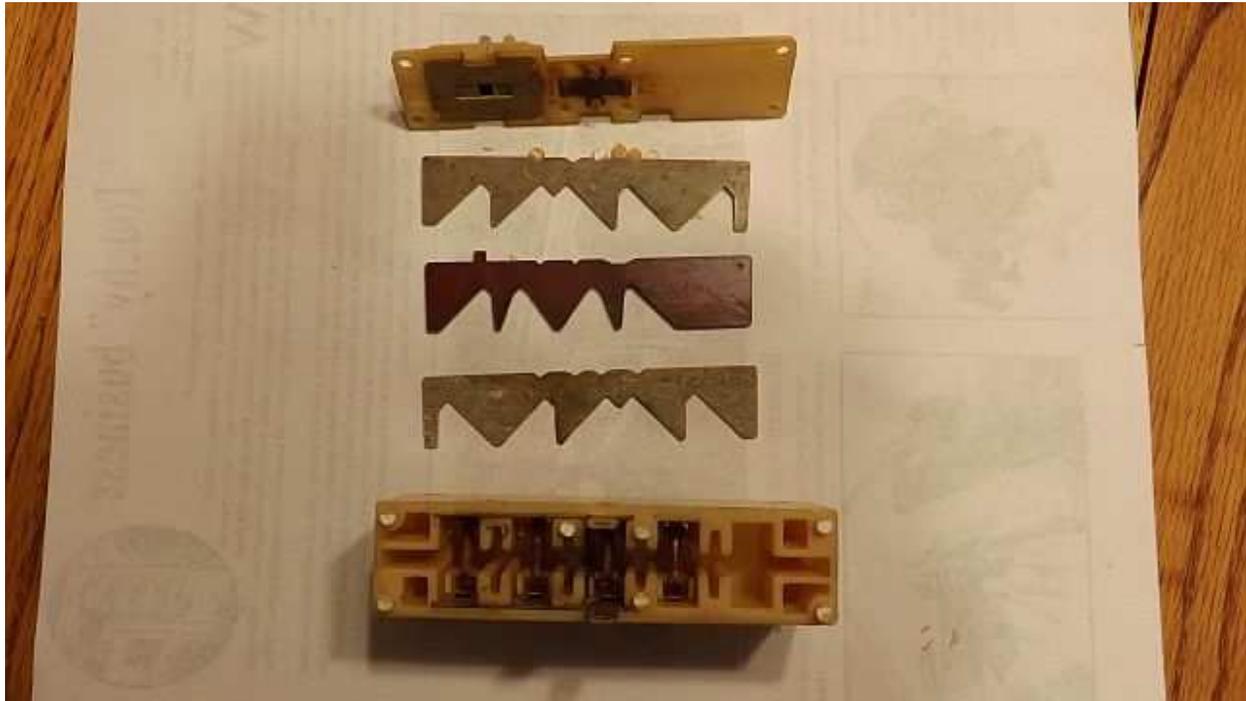
After the “buttons” are removed carefully work the blade of the knife between the top plate/cover and main body of the switch and pry them apart.

Switch2.jpg



Disassembled switch

Switch3.jpg



The broken ports on the top plate/cover need to be carefully trimmed down to an even with surface, then sanded to a rough finish.

Sand the flange portion of the pop rivet to a rough surface.

The sanding of the top plate/cover and the pop rivets is to help the JB Weld hold better.

After the fact, I would have also drilled small (1/16") holes next to each broken port.

The holes would serve to "anchor" the JB Weld the top plate/cover. Any JB Weld that came thru into the vacuum slide area would have to be removed/smoothed so that the slide would work.

The “barrel” of 1/8” X ¼” long aluminum pop rivets is used for the replacement ports.

Switch4.jpg



Before doing any work with the JB Weld Strip about 4” lengths of small (22gauge) wire. The number of wires need will depend on how many ports need to be replaced.

22 gauge copper telephone inside wire was used here. It is small enough to pass thru the small vacuum ports of the switch.

Fold the wires in half and run them thru from the under/inside of the ports to be replaced.

Mix a small amount of JB Weld and use a sharp pointed toothpick to apply a small bead around the bottom of the pop rivet(s). If holes have been drilled into the top plate/cover force the JB Weld thru them.

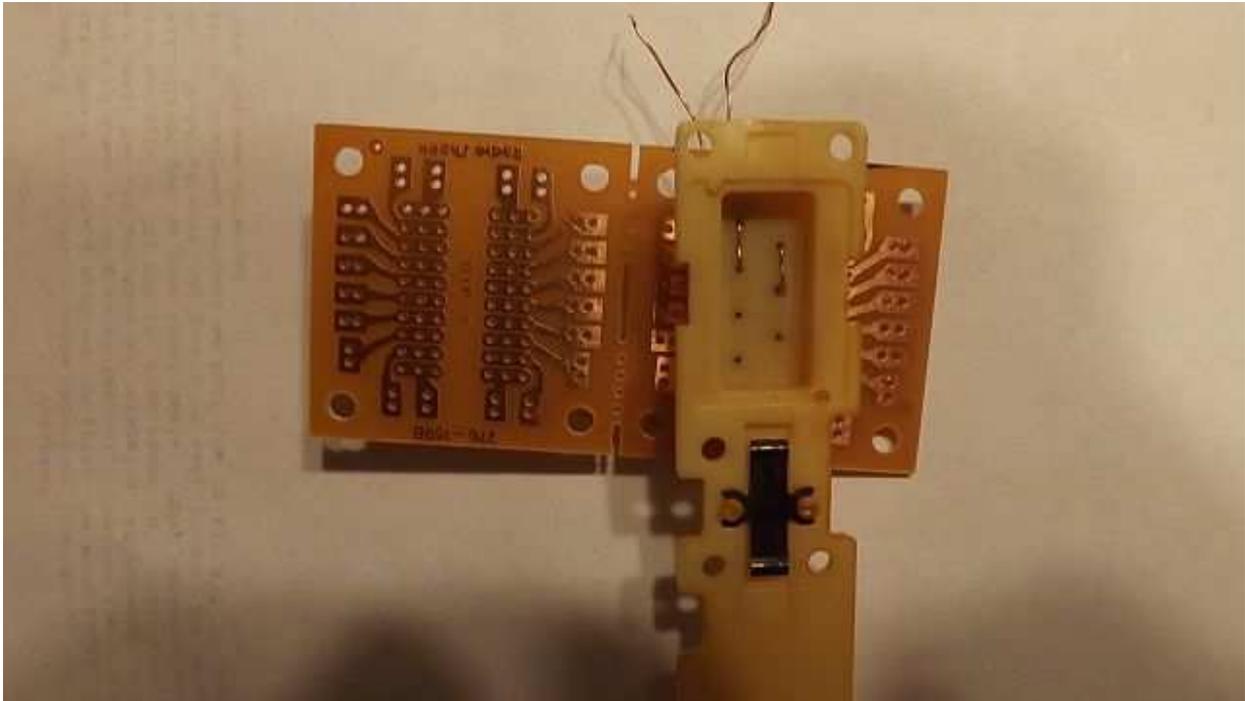
Then slide the rivet(s) over the wire(s) to the surface of the top plate/cover.

A small electronic perforated circuit board was used here to help clamp/hold the rivets in place. A small piece of cardboard could be used also. If cardboard is used, punch small holes for the wires and test fit ahead of time.

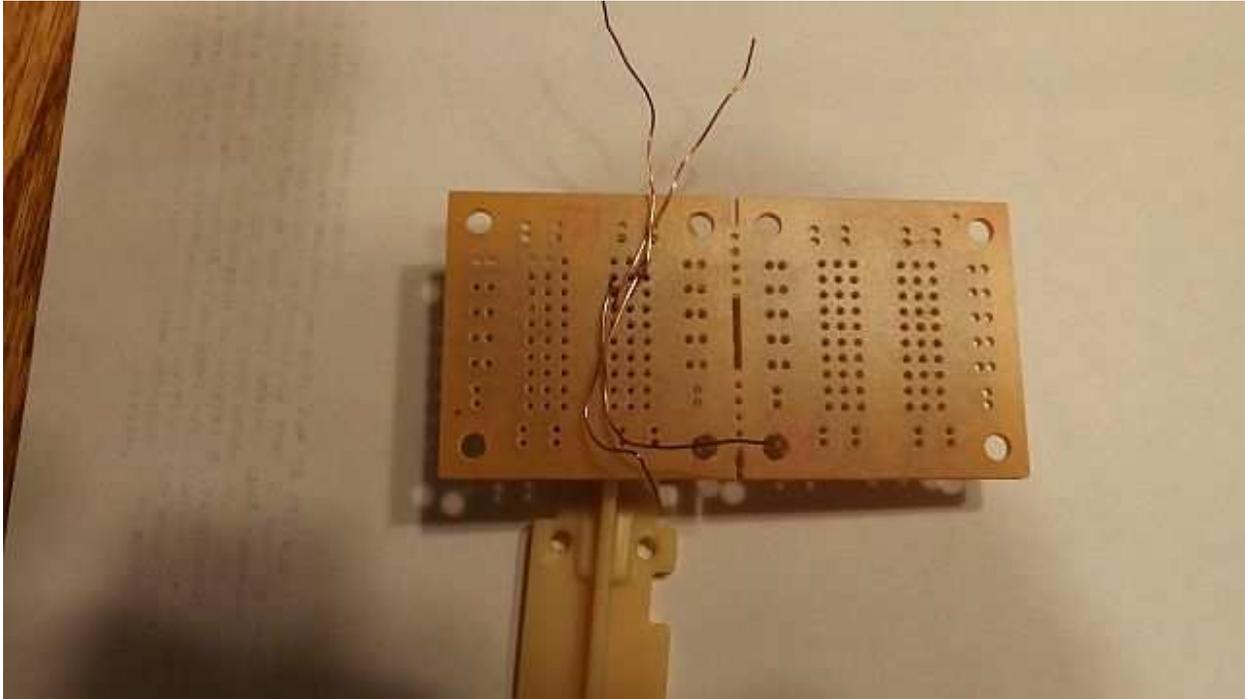
Feed the wires thru holes that are spaced close to the port spacing. (Test fit this before applying the JB Weld) Then twist the wires together to help clamp/hold the rivets in place.

After the JB Weld has started to cure some and is holding the rivets (15-20 minutes), remove the perf board and carefully slide the wire back and forth in the rivet/hole to make sure it is not blocked by the JB Weld.

Switch5.jpg



Switch6.jpg



Switch7.jpg



Let the JB Weld cure overnight.

Then mix a small amount of JB Weld and using a sharp pointed toothpick apply the mixture around and slightly over the flange (s) of the rivet(s) and let cure before reassembly of the switch.

Once the JB Weld is cured, place the top plate/cover onto the main body of the switch over the pins.

Use a 5/64" bit and very, very carefully drill the center of each pin to a depth of about 1/2". Be extremely careful to keep the drill straight and square in all directions to keep from drilling thru the sides of the switch body.

Switch8.jpg



Once the holes are drilled, use a #4 X 40 tap and tap treads in all of the holes.

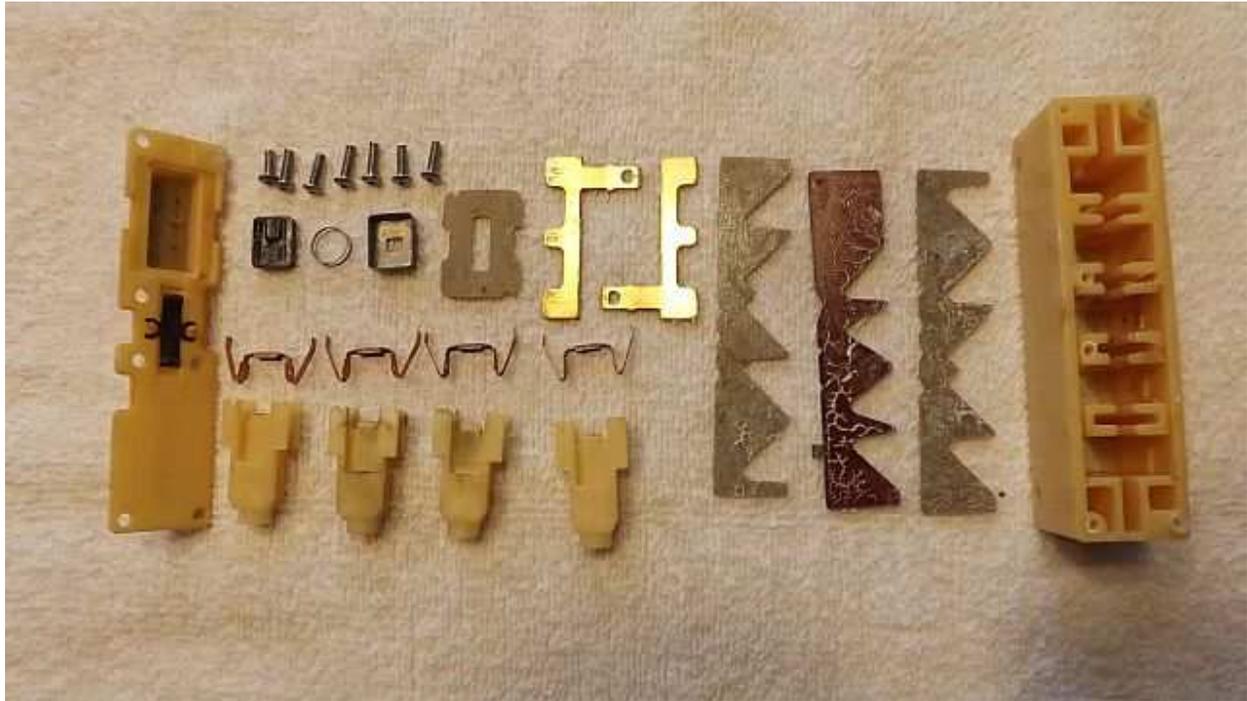
Switch9.jpg



Stainless steel pan head hex #4 X 40 X $\frac{3}{4}$ " machine screws shortened to $\frac{1}{4}$ " were used to secure the top plate/cover to the switch body.

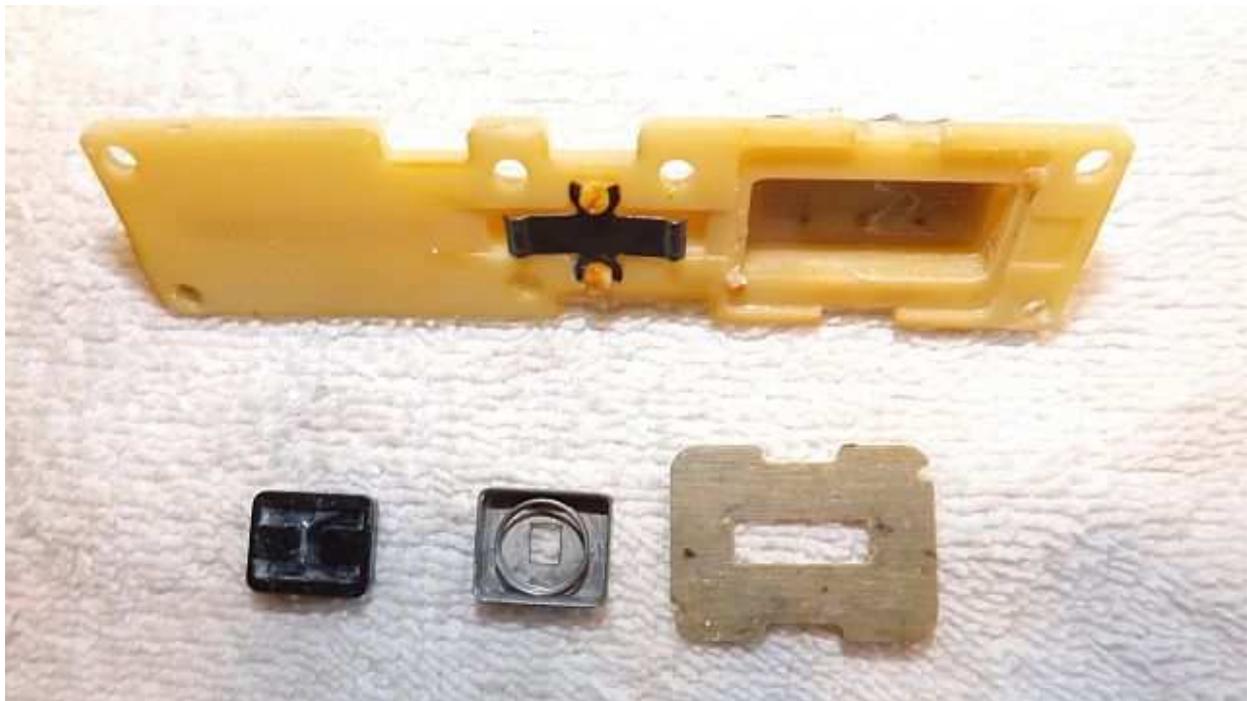
Switch Components

Switch10.jpg

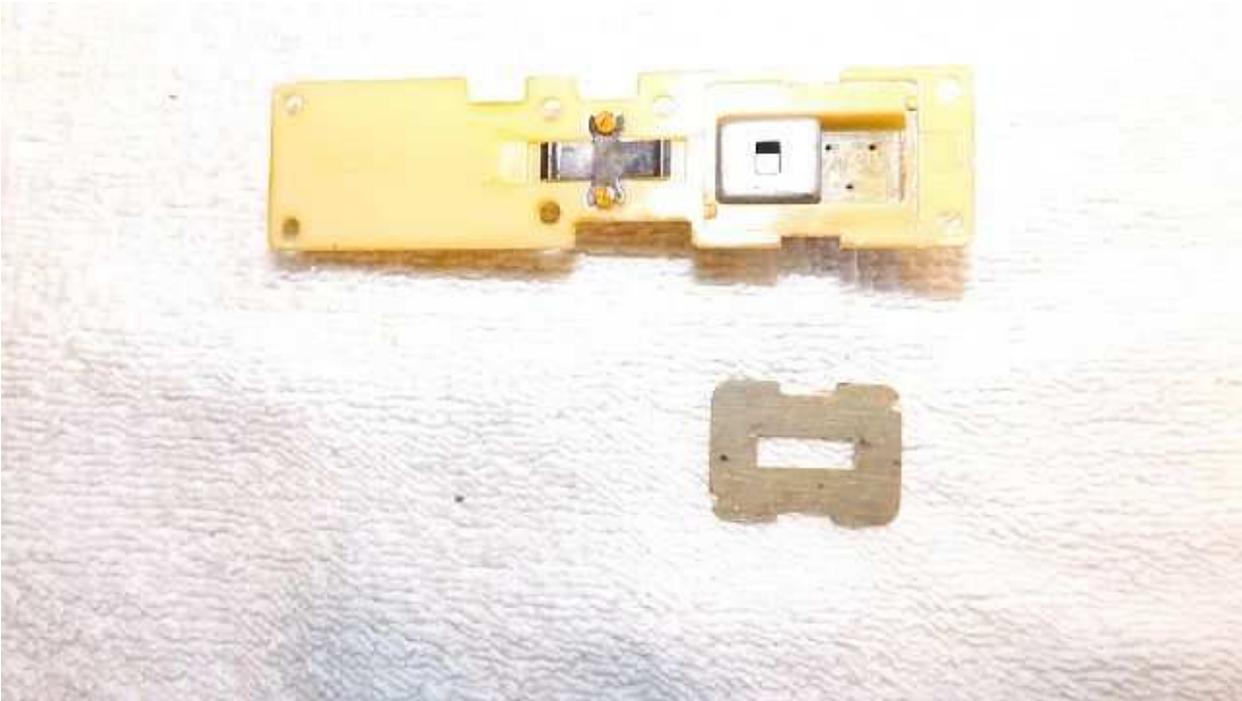


Before assembly, lubricate the inside of the vacuum port area and the rubber slide as well as the three switch slides with white lithium grease.

Switch11.jpg



Switch12.jpg

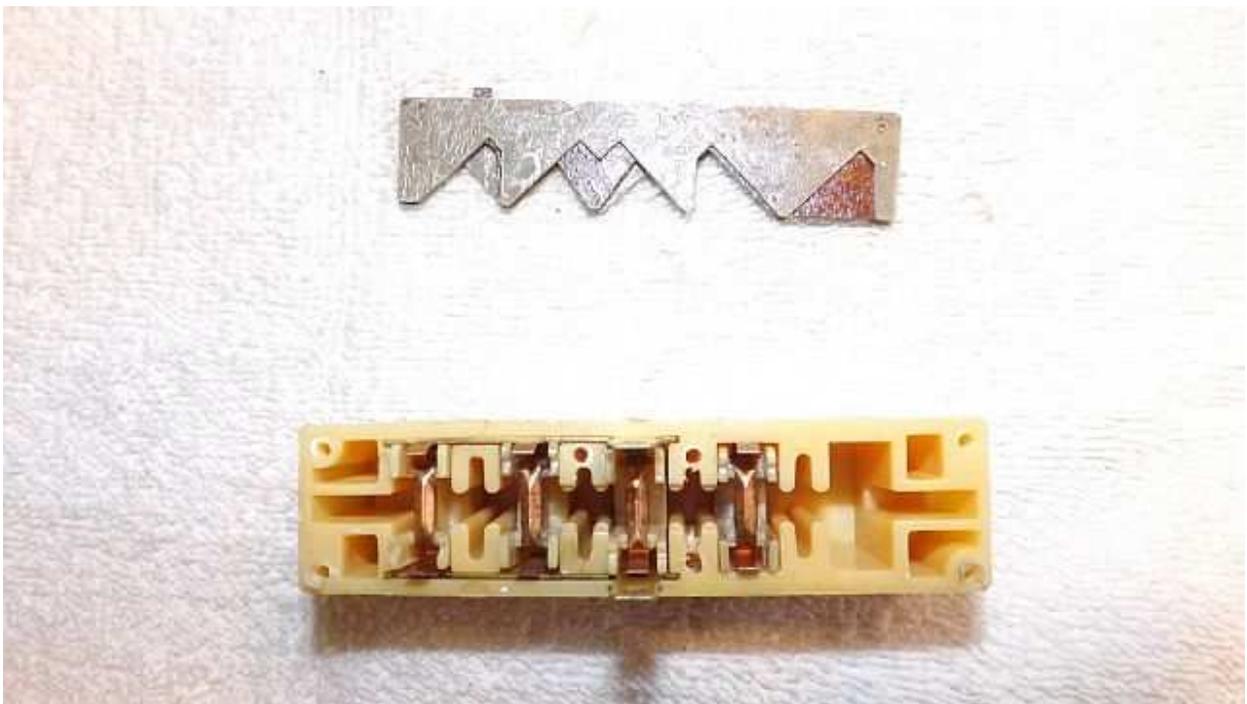


Switch13.jpg

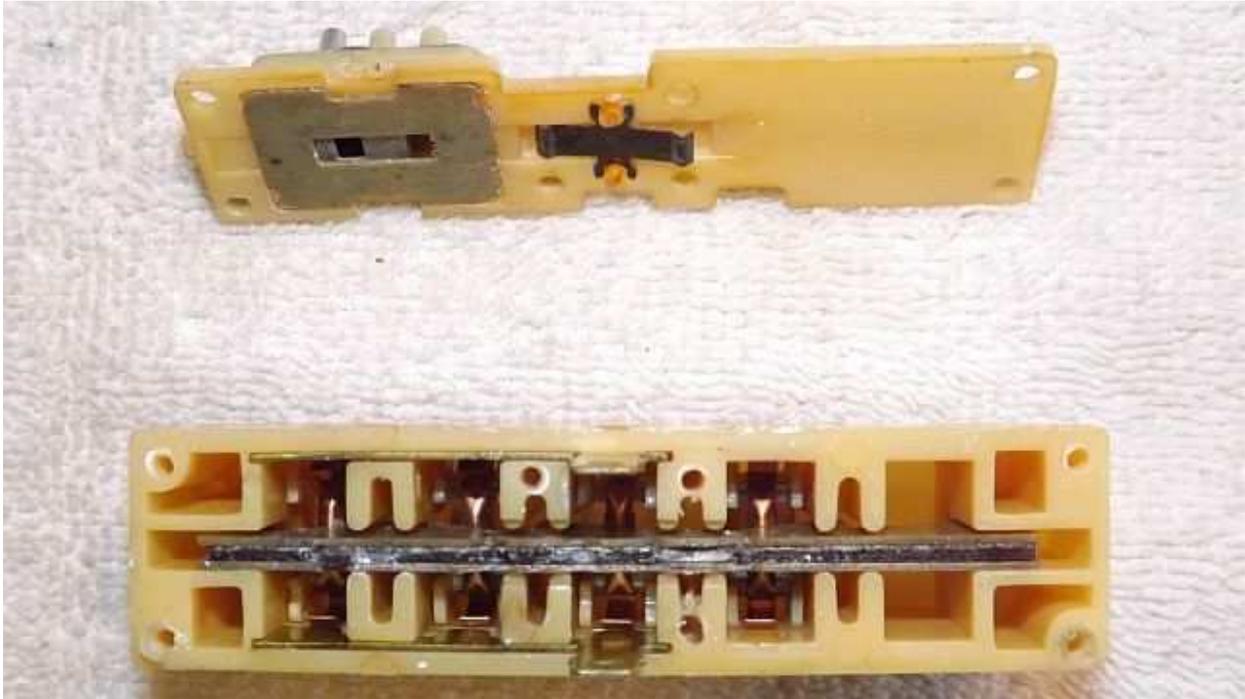


Lubricate and re assemble the pushbuttons and slides into the switch body.

Switch14.jpg



Switch15.jpg



Carefully assemble the top plate/cover to the switch body and secure with the pan head screws.

The repaired switch is now ready for use.

Switch16.jpg



