



Microsoft Wheel Mouse Optical 1.1A Microswitch Replacement

I've owned two of these mice, getting several...

Written By: Andrew Lye



INTRODUCTION

I've owned two of these mice, getting several years hard use from each before experiencing issues with intermittent right-clicks or false clicks while scrolling. They're still highly regarded by FPS gamers and for me cause less fatigue in day-to-day use than any other mouse.

This guide demonstrates the replacement of microswitches for scrollwheel, left and right buttons.

TOOLS:

[Soldering Iron 60w Hakko 503F](#) (1)
[Lead-Free Solder](#) (1)
[Desoldering Pump](#) (1)
[Phillips #1 Screwdriver](#) (1)
[Heavy-Duty Spudger](#) (1)
[Adjustable Circuit Board Holder](#) (1)

PARTS:

[Panasonic EVQ-P0E07K](#) (3)
microswitch

Step 1 — Remove casing screws



- Start by removing the four feet from the underside of the mouse. It may help to use a blade to lift a corner before gradually peeling off and setting aside.

Step 2 — Release plastic tabs



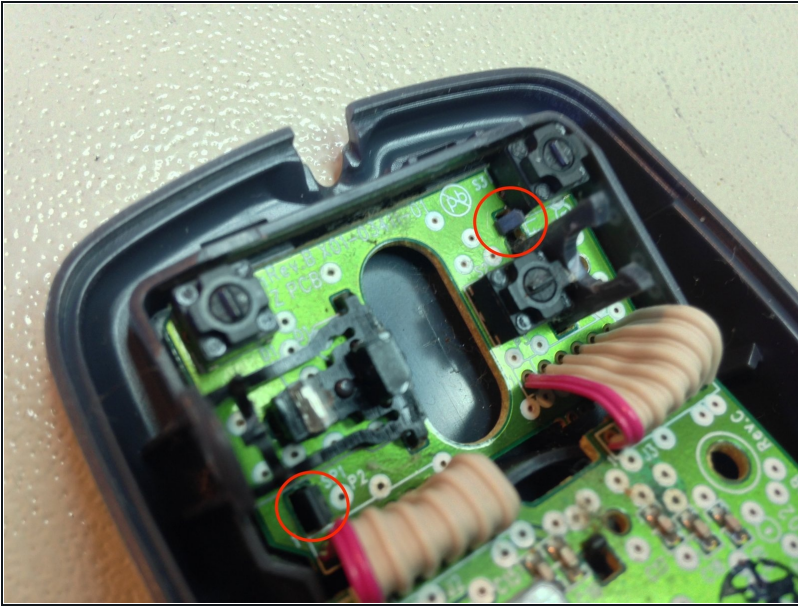
- Using a spudger, release the clips securing the top of the mouse. One of mine proved very stubborn, so I needed to use a flat-blade screwdriver to release. Work carefully so as not to damage the plastic tabs.

Step 3 — Remove lower PCB



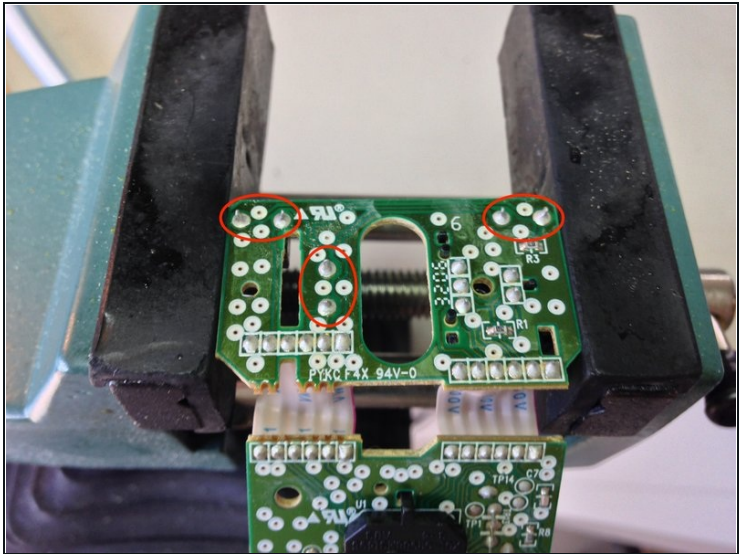
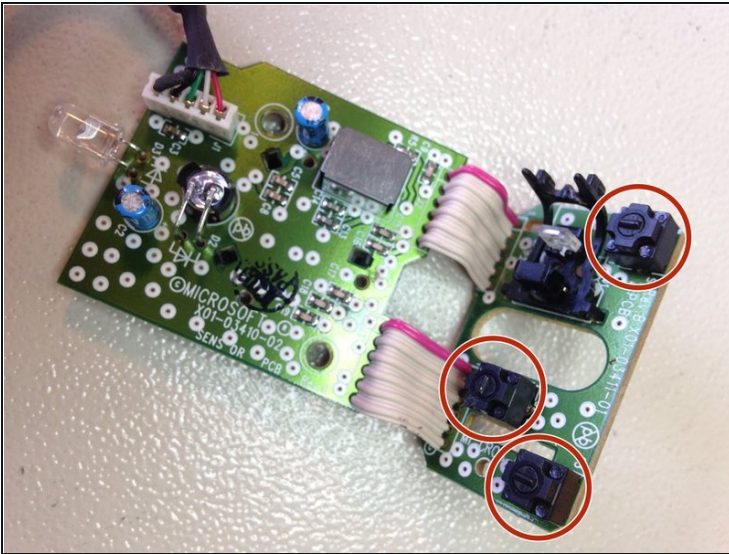
- Using a Phillips #1 screwdriver, remove the two screws holding the lower PCB.

Step 4 — Remove upper PCB



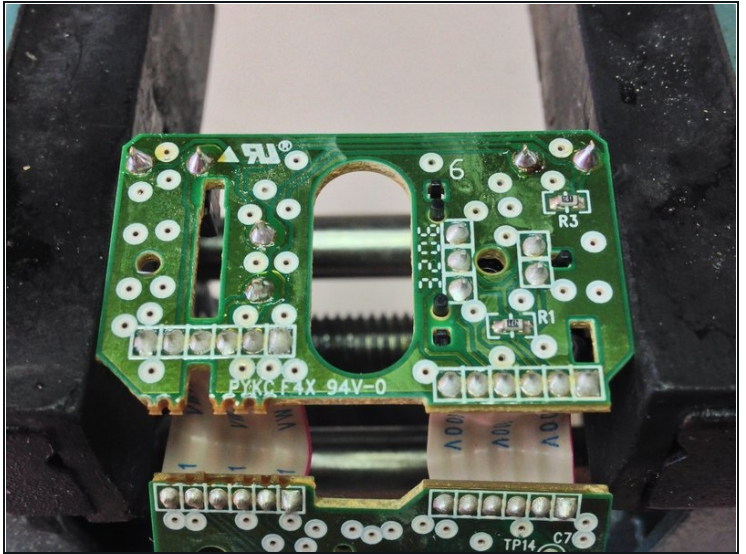
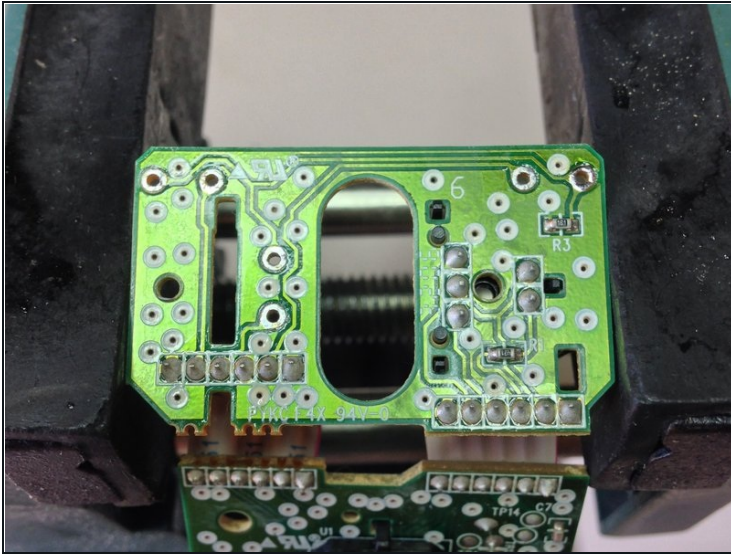
- Remove the scrollwheel and release the upper PCB by depressing the two plastic tabs shown.

Step 5 — Identify switches for replacement



- Once the PCB is free, identify the three microswitches - one for the scrollwheel, one each for the left and right mouse buttons. Mount the PCB in a small vice or board holder.

Step 6 — Desolder & replace switches



- Using a [desoldering pump](#) or solder wick, clear the existing solder so that the microswitches can be freely removed. Should you encounter resistance when removing the switch be sure that any residual solder has been removed so as not to damage the pads when the parts are withdrawn.
- Once the old microswitches have been removed and the board is clean, the new switches can be dropped in place. I used Panasonic EVQ-P0E07K switches which appear to be a direct replacement. These are a 'snap in' component so the legs of the component secure themselves snugly through the board, allowing easy soldering.
- Note: The suggested Panasonic EVQ-P0E07K switches have a light touch similar to the original part used in the mouse. For a firmer, more mechanical 'click' Panasonic EVQ-P0D07K switches may be used instead.

Step 7 — Clean up and reassembly



- If there is any flux residue from soldering it may be cleaned with a little isopropyl alcohol. Now is an ideal time to clean out any dust and debris from inside of the casing before reassembly.

To reassemble your device, follow these instructions in reverse order.