

**Rear Mounted Rotating Selector Mode Switch (Mode Dial)  
as originally presented on “Do it Yourself Digital Camera Repair”  
<http://camerarepair.blogspot.com/>**

Rotating camera selector switches (also called “Mode Dial” on Canon cameras) enables the camera to select different modes of operation. Rear mounted types, such as those seen in the example picture, are of very simple design. They should operate for a very long time due to their simple design. Yet some may become inoperative for a variety of causes (dirt fouling, impact damage, etc...). When this occurs, it may be necessary to actually open up the camera case to correct this problem.

If you must open up your camera in an attempt to repair it, it is very important that you understand that there is some risk of electrical shock. All digital cameras contain a flash capacitor. This device stores quite a bit of electrical energy from the camera's batteries. This energy is utilized to power the camera's flash. The device itself looks a little like a battery, and in turn draws its power from the camera's batteries. In order to work on your camera, it will be necessary to safely drain the capacitor of any residual charge it may have. Please see the applicable section in this blog that outlines this procedure:

<http://camerarepair.blogspot.com/2007/11/important-warning-camera-flash.html>

**Rotating Selector Switch**

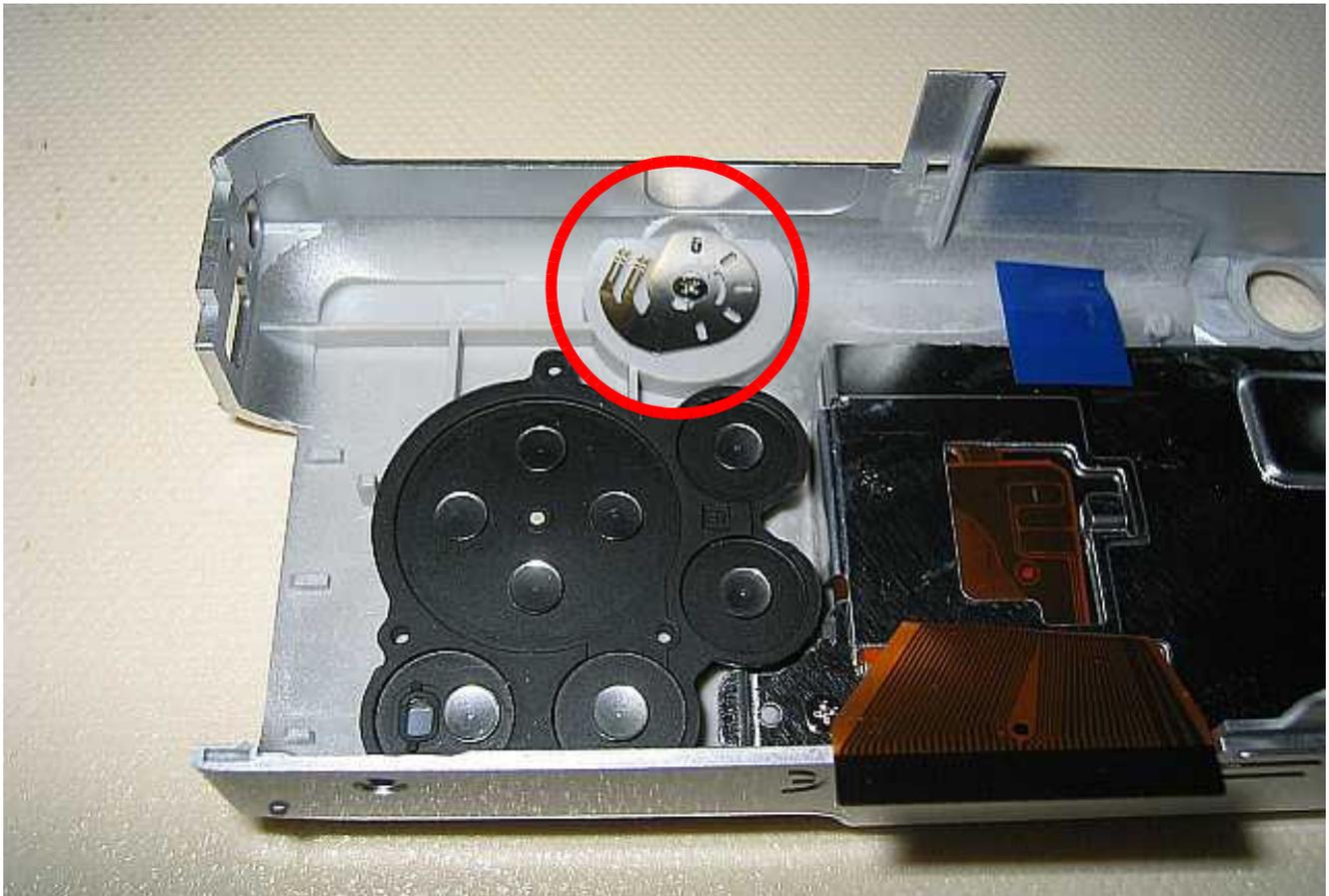


Before we start on the actual repair, the usual warning of “**Follow these procedures at your own risk. These procedures should only be considered as a last resort on a broken camera with an expired warranty. I take no responsibility should you damage your camera in following these steps. Also note that there is some danger of electrical shock from the camera's flash capacitor. I also take no responsibility if you zap yourself while following these procedures.**”

It will be necessary to remove the back face from your camera to access the switch. The procedures vary little from camera to camera. It usually involves removing all the visible screws along the perimeter of the camera (also look for hidden ones, such as under the battery door or other camera flaps), then prying the back case off, usually starting at the lower portion of the case. A ribbon cable may be attached between the back case and the camera's circuit board. Recommend leaving the cable attached as you usually should still be able to access the switch. With the case open, and before proceeding further, remember to discharge the flash capacitor with the batteries removed as shown on this blog site.

Now note the simplicity of the design of the mode dial. It's merely a rotating contact plate with two brushes that complete the circuit of the contact dial on the circuit board. With this design it's easy to see how the brushes or contact plate may become fouled with gunk to interfere with contact. The brushes may also easily become slightly bent, say from a camera fall, thus also interfering with operation.

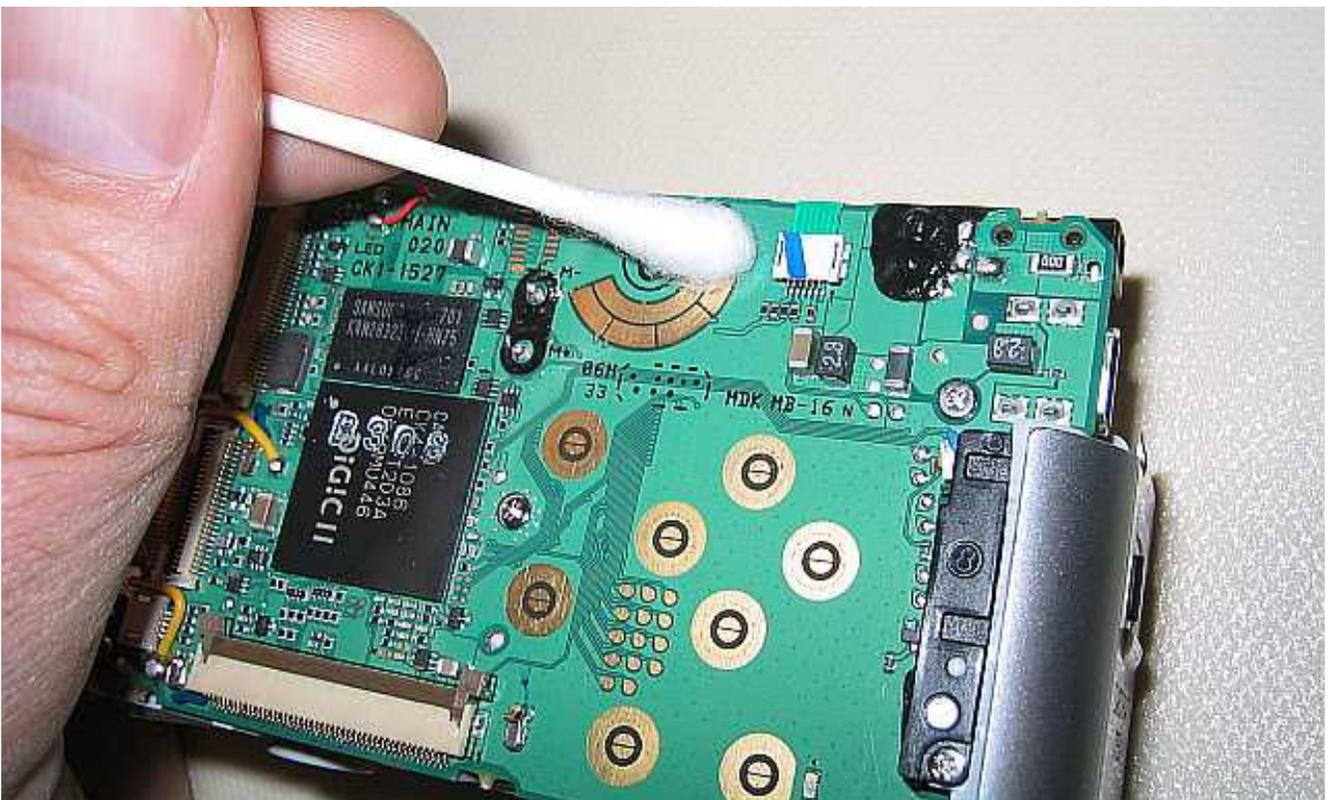
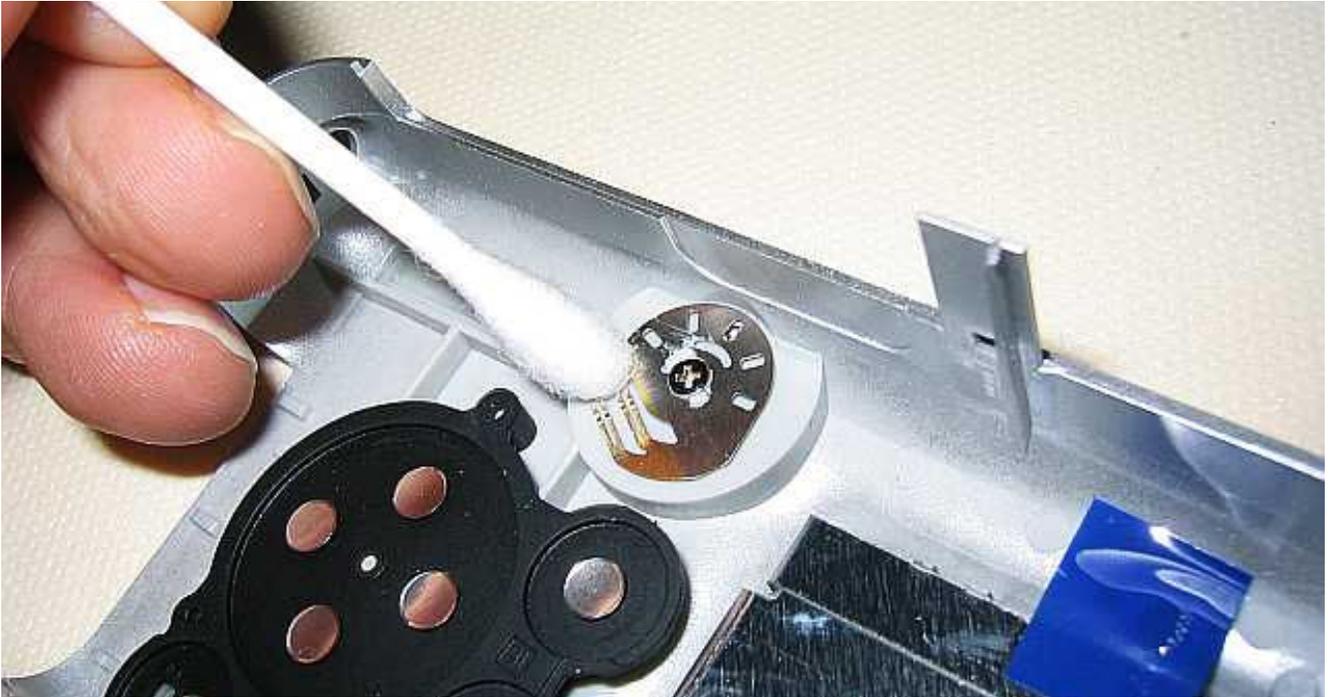
### **Mode Dial Contact Plate and Brushes**



## Mode Dial Contact Dial on Circuit Board

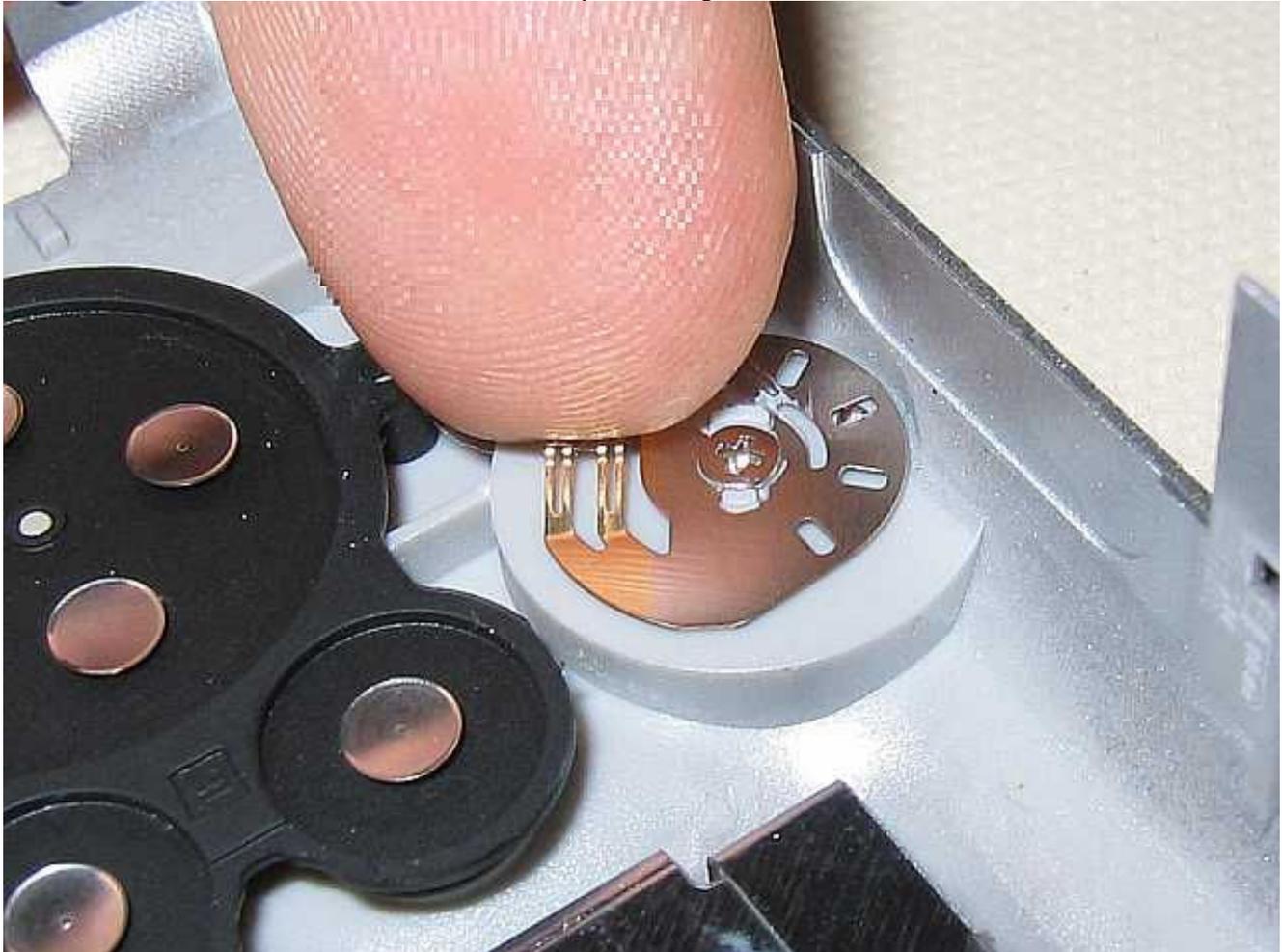


You may have already deduced what we need to do. The first is to clean the brushes and circuit dial of any visible gunk that may have accumulated on them. I recommend a Q-tip, very slightly dampened with a drop of alcohol. Be careful with the alcohol, you don't want it running all over the circuit board. Remember to check and clean off any residual cotton hairs/lint from the Q-tip on both of these components. A little compressed air blowing would help here.



Finally, **only bend the brushes if you suspect them of being damaged** (remember that time you dropped the camera? Ain't it funny that it started to act up then?) ***Ever so gently*** lift up on both brushes to bend them slightly upward to ensure contact with the contact dial. Emphasis on the gently, we just want to bend them up the tiniest bit.

### **Ever so Gently Bend Up the Brushes**



That should do it. Reassemble the camera and try it out. Good luck!



**Camera Repair**