Step 1:

Remove round side shields. There are 2 screws that hold the shield to the clock. Two types of screws may be present: a T-5 Torx, or a 0.050" hex head cap screws. Remove both screws. Then the shields can be gently pulled off.

Note: If the side shield acrylic mounting bracket comes off or is loose, it will need to be re-glued, see step 10.

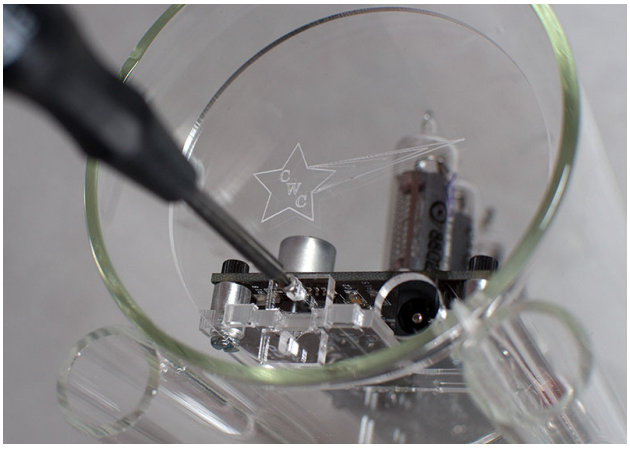

Figure 1: Removing Torx screw

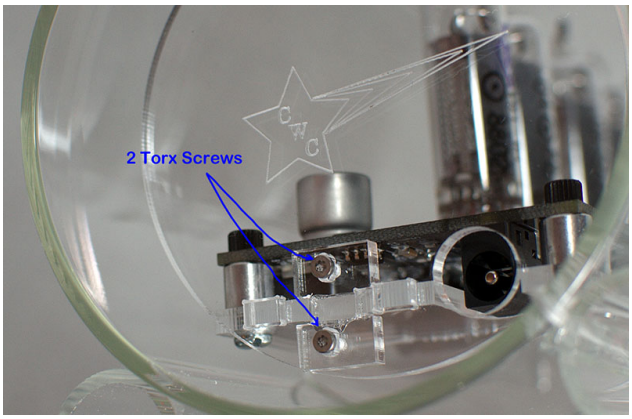

Figure 2: Each side has 2 screws

Step 2:

Remove the 4 cap screws that hold the circuit card to the clock. The screws are 3/32" hex cap screws. An "L" shaped 3/32" allen wrench can be used to remove the screws. Note: The middle spacer screw is not removed.

Figure 3: Top view of circuit card

Step 3:

At this point, the board can be lifted up gently to clear the spacer screw. It may be possible at this point to straighten all the tubes without disconnecting the I/O cable – go to step 8 to reassemble the clock. If the board needs to be removed, continue to step 4.

Step 4:

Remove the I/O cable. This is removed by prying gently (using your finger nail) on the top edge of the connector, and on the side edges of the connector until it comes loose. Warning: Do not pull on the wires!

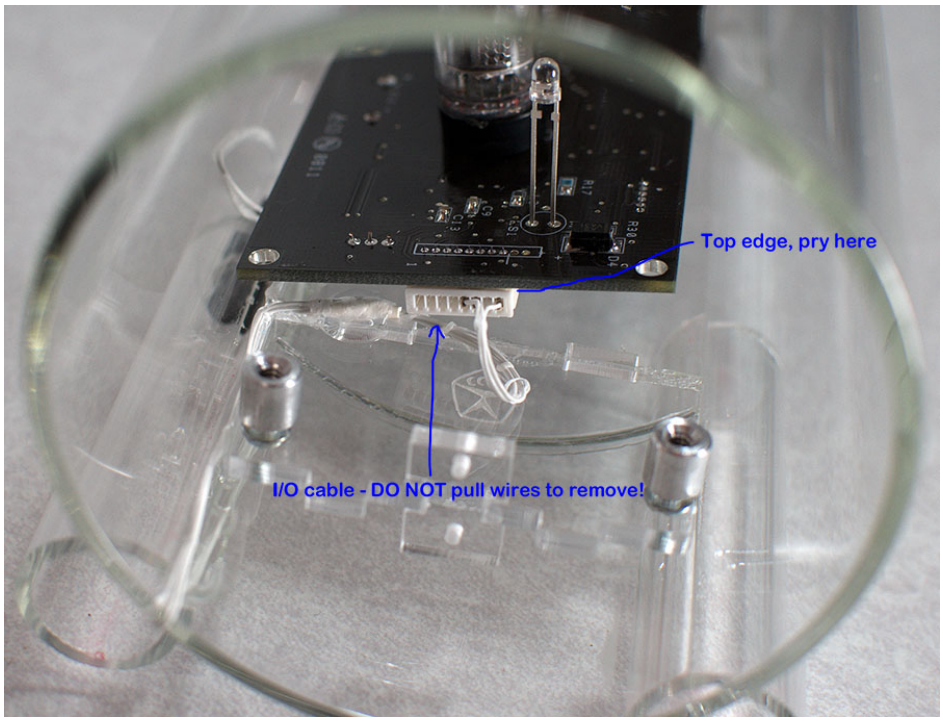

Figure 4: I/O cable

Step 5:

With the I/O connector unplugged, the board may be removed from the clock. Slowly pull the board out of the clock.

Step 6:

With the board out of the clock, do the necessary repairs to the clock (straightening tubes, replacing tubes, etc.).

Step 7:

Put the circuit board back into the clock. Carefully guide the board into the clock, see figure 5. Before putting the board into the mounting holes, attach the I/O cable. Carefully line up the I/O connector into the socket and gently push the connector into the socket.

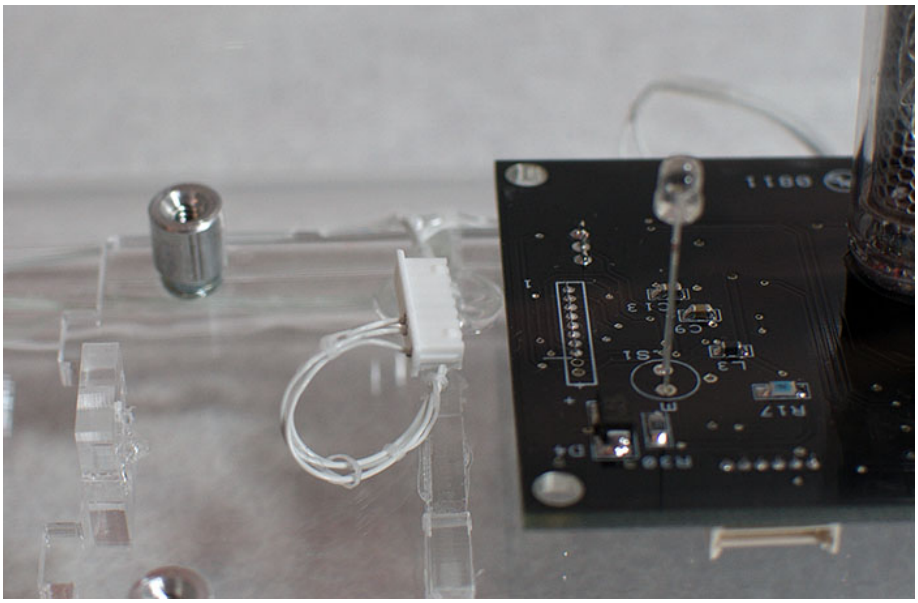

Figure 5: I/O cable ready to be installed

Step 8:

Put circuit board back into the clock mounting holes. Guide the spacer screw into the hole on the acrylic base (in the middle of the acrylic base).

Step 9:

Replace the 4 board screws, tighten gently (see figure 3).

Step 10:

Check the side shield acrylic mounting brackets. If they are loose re-glue the side shield with Weldon-16 glue. Let dry at least 12 hours.

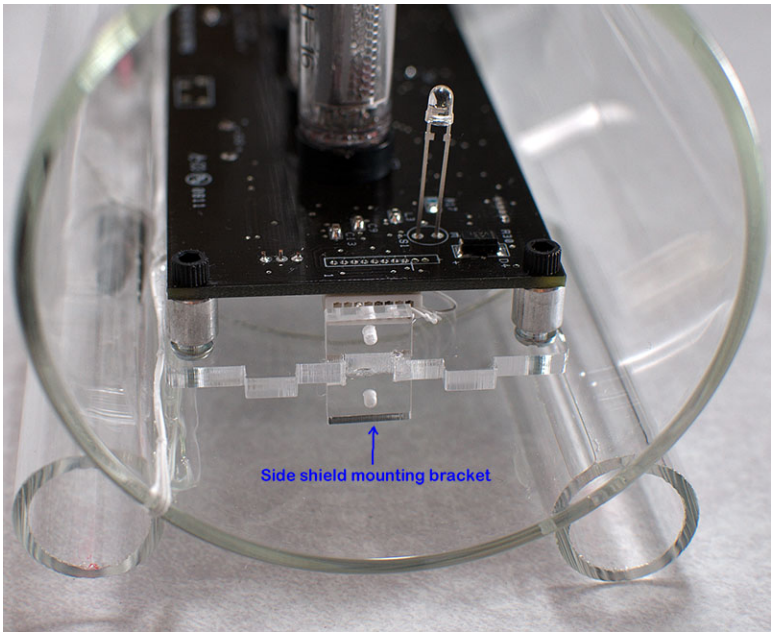

Figure 6: Side shield acrylic mounting bracket

Step 11:

Plug in the clock and make sure it functions before replacing the side shields. Make sure and test the switches. If the switches do not work, make sure the I/O cable is fully inserted into the I/O socket, and that no wires are broken.

Step 12:

Replace the side shields, gently tighten the 2 side shield screws. See figure 1 & 2.