

Modifying/repairing the PXL 2000

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Why?

Because when I bought a PXL 2000 on Ebay it wasn't working well out of the box. I found a handful of PXL pages on the web and a few of them were very informative. I got a good start repairing my camera from these sites and I wanted to consolidate as much information for others who were interested in working on their cameras. If you have a rudimentary knowledge of soldering and are patient you don't have to pay someone big bucks to make simple repairs to your camera. Here are some of the steps I took to improve my PXL from unusable to like new in a few afternoons:

Taking out the blue square

Ah the infamous blue square. I'd read about this little devil on other PXL 2000 websites and I didn't know what they were talking about until I got my camera and the picture was awful. The first thing I did was to unscrew the camera and look at the lens piece. The lens is fixed to a small printed circuit board and you don't need to unscrew it from the board. You will see two small plastic pieces that look like they're screwed together with a dab of glue on the side. Carefully using a razor blade, break the seal of glue and gently unscrew the pieces from each other. The piece that comes off in your hand will have 2 pieces that snap together. Separate them carefully and the little blue square will fall out. I put mine in a small bowl for safekeeping. Rather than clean it, I reassembled the pieces without the blue square.

When I plugged the camera back in the picture was perfect, or at least what you'd expect from a PXL. I don't think I'll put the blue square back in, I haven't found any information that said what it was for - I'm guessing it was a filter of some sort for the CCD, or maybe just a protective film to keep any dirt off the CCD?

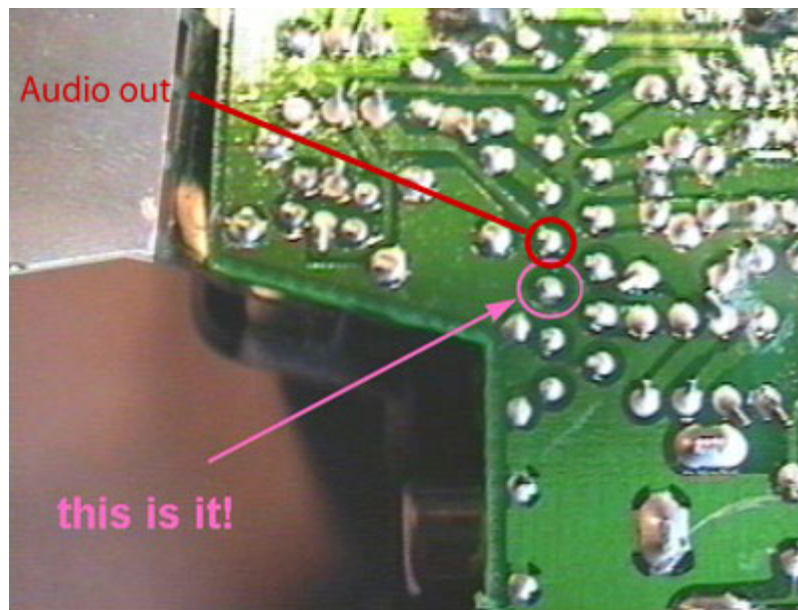
Installing the video out

This was a necessary modification, mainly because the RF filter that came with my camera was a POS (read: it sucked). The image on the TV was filled with static and a connection inside the RF filter box was loose (I later fixed this but it didn't improve the picture at all).

Rather than repeat the information, there is a fantastic resource for installing a video out jack [HERE by Joe Moore](#). After following his directions I plugged it straight into my TV and the picture was beautiful. No static, no haze, just clear Pixel Vision! I also didn't need an inline amplifier, I have heard that some people use an inline amplifier to boost the signal to a TV or VCR. My TV saw the signal fine, but yours might not. Still, it's worth doing the modification first and finding out if you need a signal boost later. The RF filter that comes with the PXL is useless, this modification is absolutely essential in my opinion.

Installing the audio out

I couldn't find any information on the web how to do this. Most sites just said, "It's near the video output." That couldn't have been more correct. It's actually right next to the video out. I edited an image off Joe Moore's website to illustrate (the audio out is in red):



The audio out MIGHT need a boost but I didn't want to install an internal amp because it would really drain the batteries. So, whatever you're sending the audio to, you'll have to crank up the gain.

The only downside to this install is apparently it doesn't write audio to tape now. So, my films I record to tape are silent! This kind of sucks, but it works to export to another recording unit.

Replacing the belts

My camera needs the belts replaced. It will rewind but will not play or record. I haven't done this work yet but I'll post a howto when I do. In the meantime, here's where I ordered my new belts from, they were \$0.79 each:

[Studio Sound Electronics](#)

I read elsewhere that the belts you need are:

Small belt: IC=5.1", width=.046", square belt. (**PART #SBS5.1**)

Large belt: IC=7.4", width=.046", square belt. (**PART #SBS7.4**)

Studio Sound Electronics Part numbers are in red.

When I first bought my camera it would rewind but wouldn't play or record. The capstans would try to spin and then it would just start beeping as if the tape was over. I figured I would try to replace the belts myself and it ended up being quite a bit easier than I thought it would be.

* Photos coming soon *

First, I disassembled the case. This was easy enough.

Next, I pulled the mechanical and circuitboard unit away from the bottom section of the case. A few wires are connected to the case because I'd installed the video/audio out earlier - remember? If you like you could probably desolder these connections and resolder them later but it wasn't too difficult for me to work with the bottom part of the case still tethered to the mechanical bits.

The next thing to do is to separate the circuitboard from the mechanics. There are three screws to remove. If you are looking at the tape mechanism, the 2 silver screws are in the lower left and right corners. There is also a small brass screw on the front side which looks like it's grounding a transistor or something to the case. Remove all three screws.

Next, we're gonna have to do some desoldering. There are three wires on top of the circuit board (flip it over!). The wires are red, blue, and black. I marked on the circuit board where each one was soldered before I removed them. Desolder these wires and we're one step closer to being able to separate the mechanics from the circuit board.

There are 2 green wires crossing the PCB also, and you'll want to desolder those as well but MARK the wires before you do! You want to make sure to put everything back where you found it when you're done. Once you've removed these, with a little twisting the two parts will come apart. Be gentle but you shouldn't have to really pull or wrench at it. Be very patient and kind.

Next, you'll see where the belts are wrapped around the gears! Pulling the old belts off is no

problem - they're stretchy rubber. Just pull on one side and lift it off. There are only two belts to replace and they are not difficult to put back on. Pull the old ones off and put the new ones on. Make sure that they're not twisted around and that the gears run smoothly. I plugged mine in and put a tape in the mechanism to make sure it was running well before I put it back together.

Turning off the beeping

I haven't done this yet, but I am going to. It really is obnoxious, and I think replacing the beeping with a blinking LED would be much classier.

If you're interested in removing the buzzer, I've read that it is blue. I'll take photos to verify the process when I do it.

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