



# GENERAL DISASSEMBLY INSTRUCTIONS FOR RE-BELTING & REPAIR OF NON-FUNCTIONAL FF & REW

INSTRUCTIONS & PHOTOS

BY

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*\* - Except where noted*

*Note: Some of the pictures didn't turn out great, but they should be good enough to get you through the process.*

## ***UNPLUG THE BOOMBOX AND REMOVE ANY BATTERIES!!***

Remove all of the knobs and switch covers on the front side of the boombox. I like to line them up in the order I took them off of the boombox.

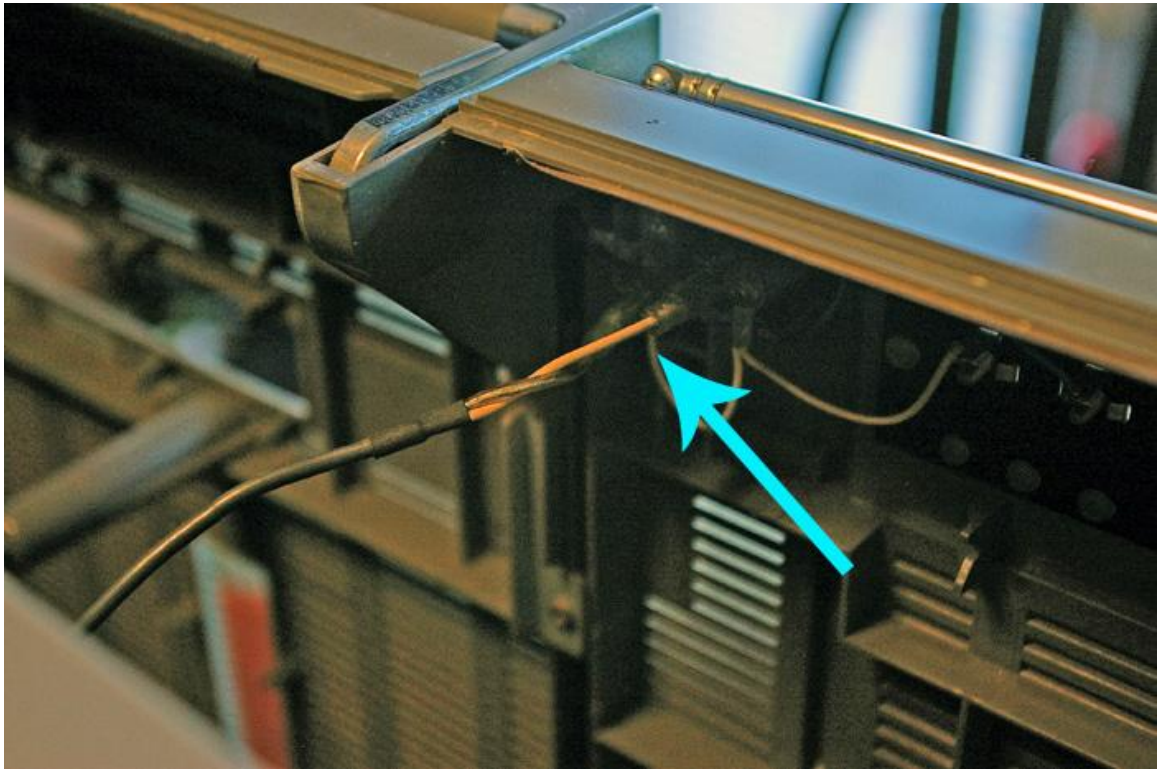


Turn the boombox around and remove the screws holding the boombox together. If you do this part right, all of the screws will stay in their respective holes. Just in case the threads are slightly different for each screw, you lessen the possibility of wearing out the threaded posts.

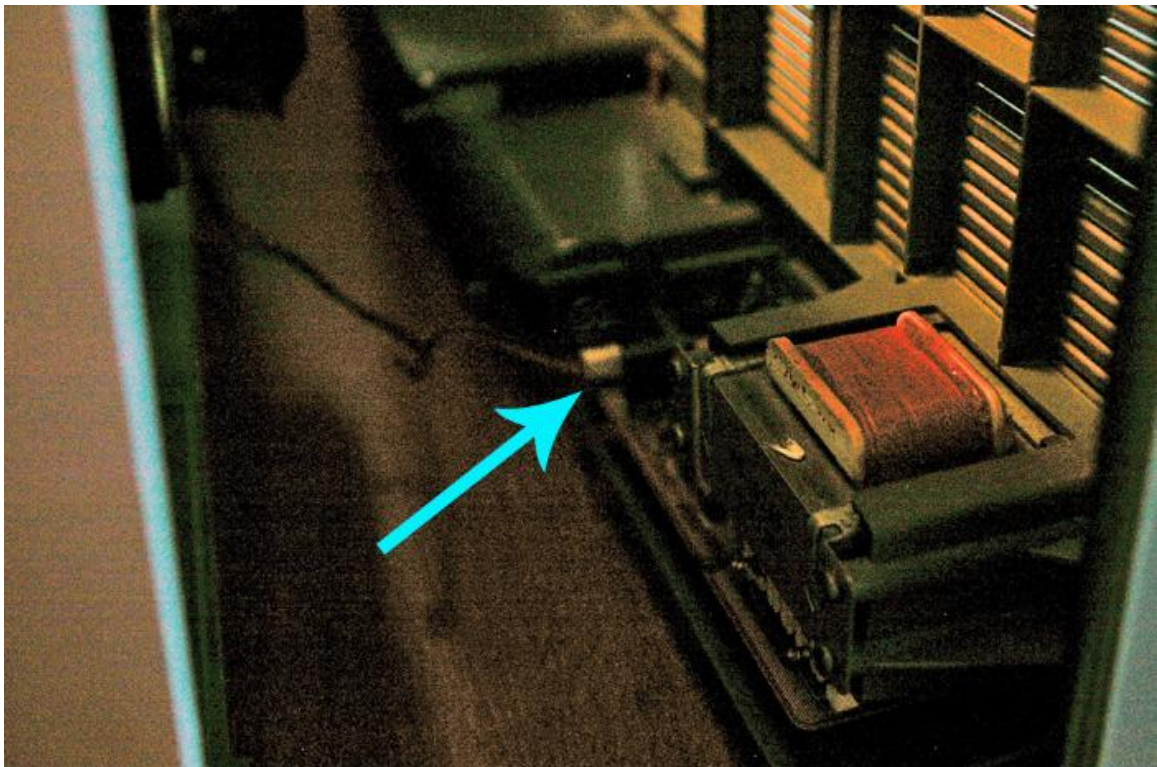




Don't yank or pull the back off with force. There are some plugs that need to be disconnected first. First, there are two wires for the antennas that need to be disconnected. Take note of the colors of the wires and which post the wires went to.



At the bottom of the case, there is a plug for the power lead. Disconnect this plug. You can now CAREFULLY remove the back of the boombox completely and set aside.

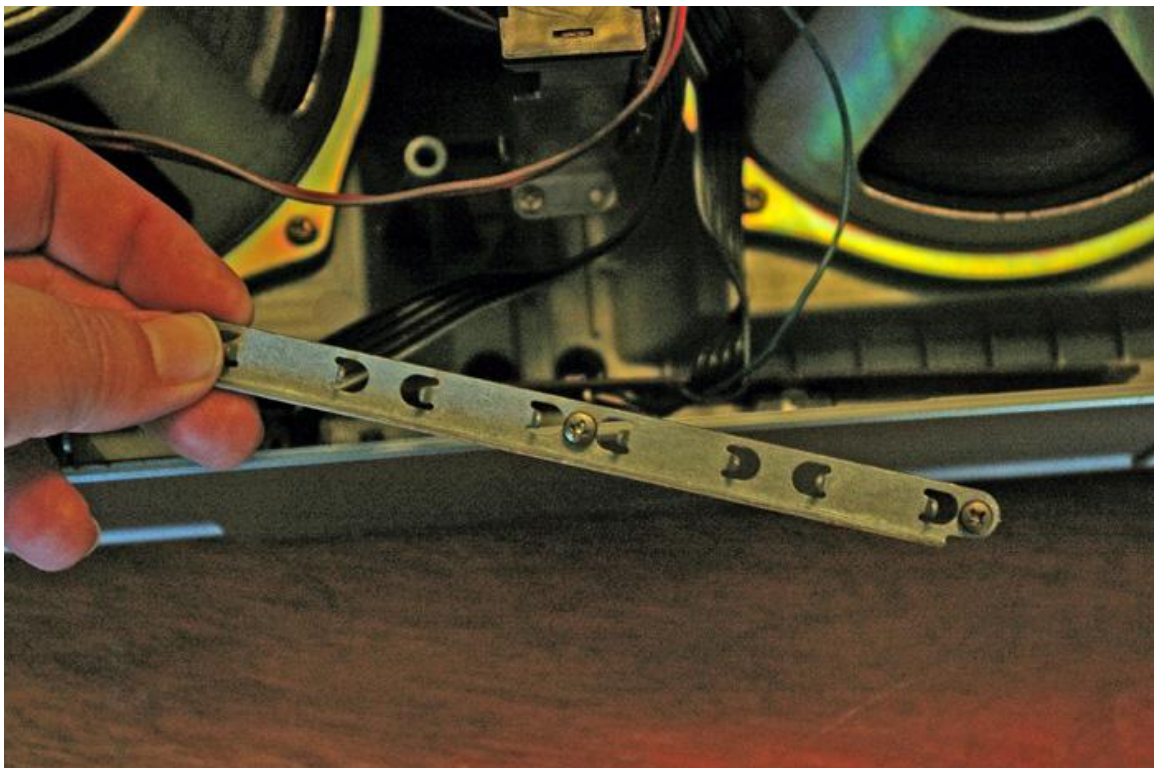




Looking at the internals of the GF-777, there are four main areas that keep the primary electronics in place, as marked by the arrows.

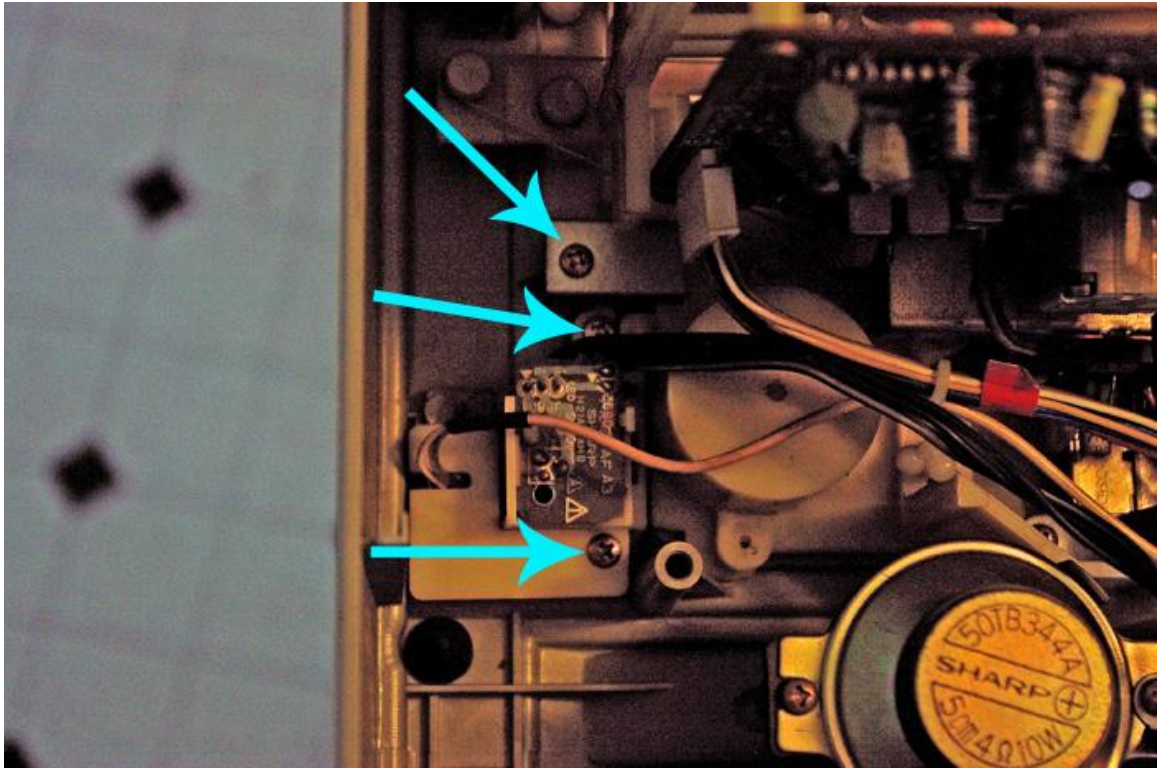


Remove the far-right screw. It will be a long screw with a washer. Remove the screw located at the top of the boombox where the arrow is pointing. Finally, remove the screw at the bottom of the vertical, black speaker connector block. Also, remove the metal bar that holds the headphone and mic boards in place.

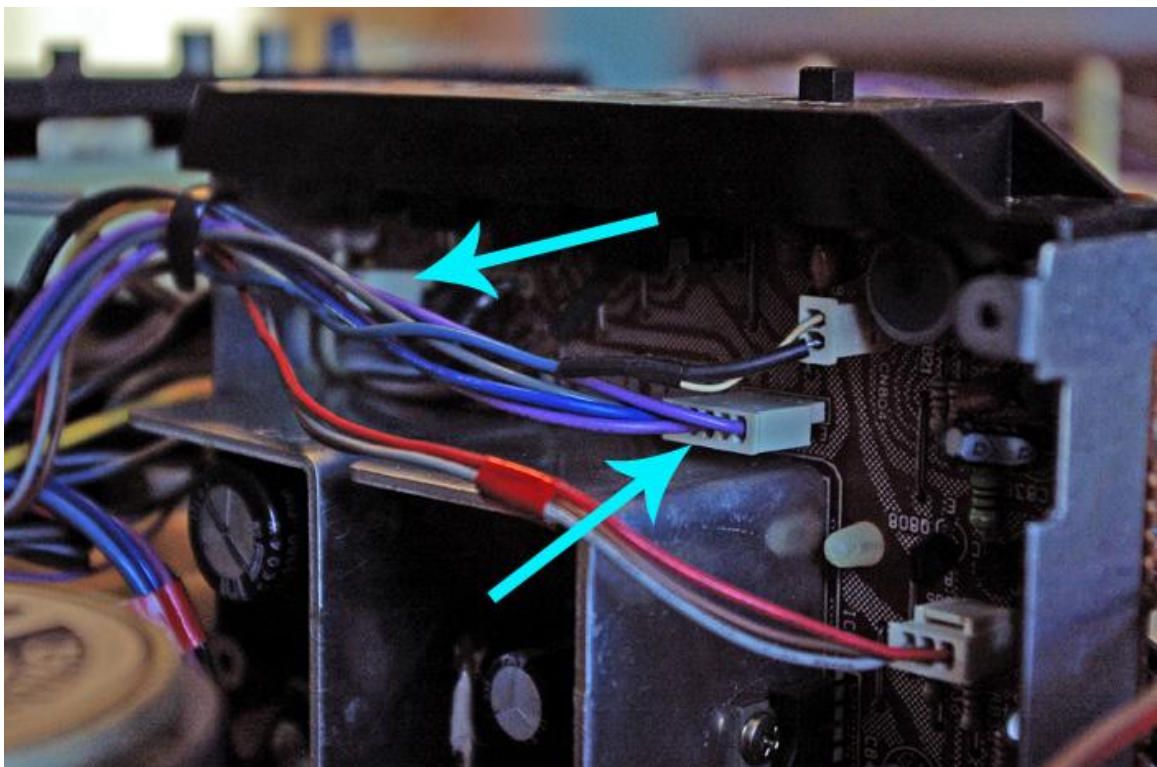




The fourth, and final area you need to look at is at the far left of the boombox (looking from the back). Remove the screws for the metal plate and the power switch.

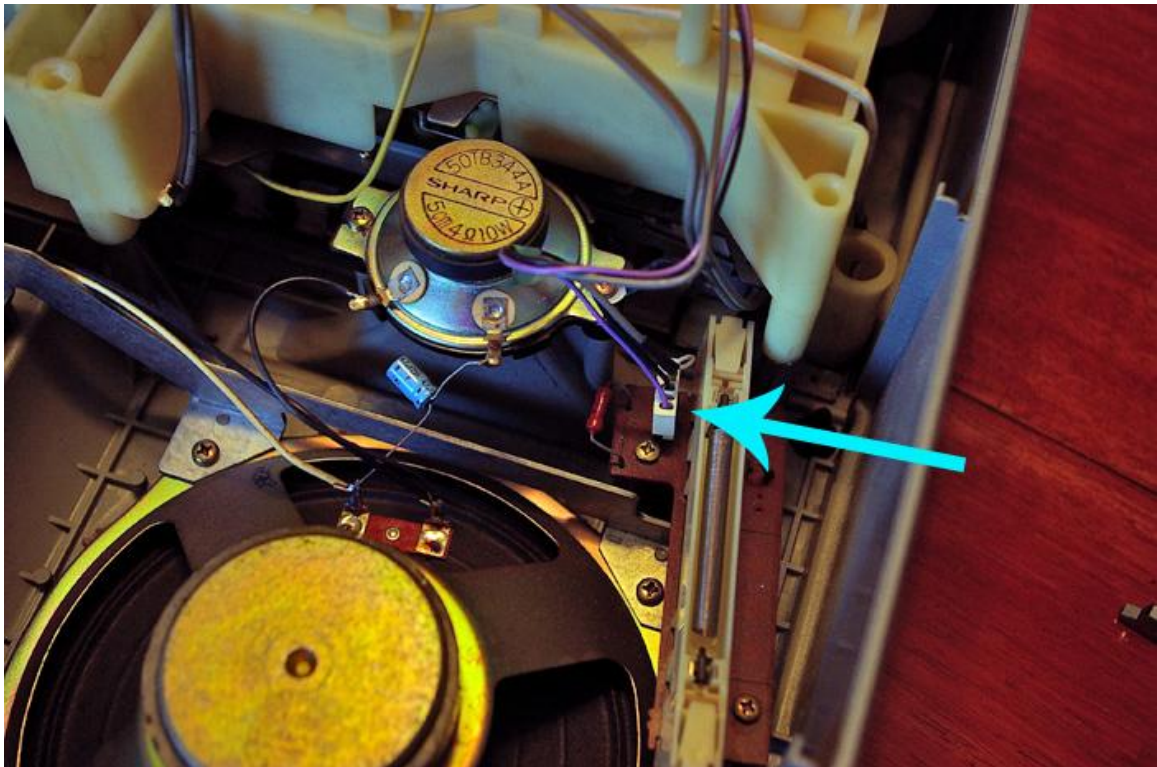


Back on the vertical, black speaker connector block, there are some plugs on the left underside. Disconnect the plugs as indicated by the arrows. One should have blue and purple wires. The other should have yellow and black wires.

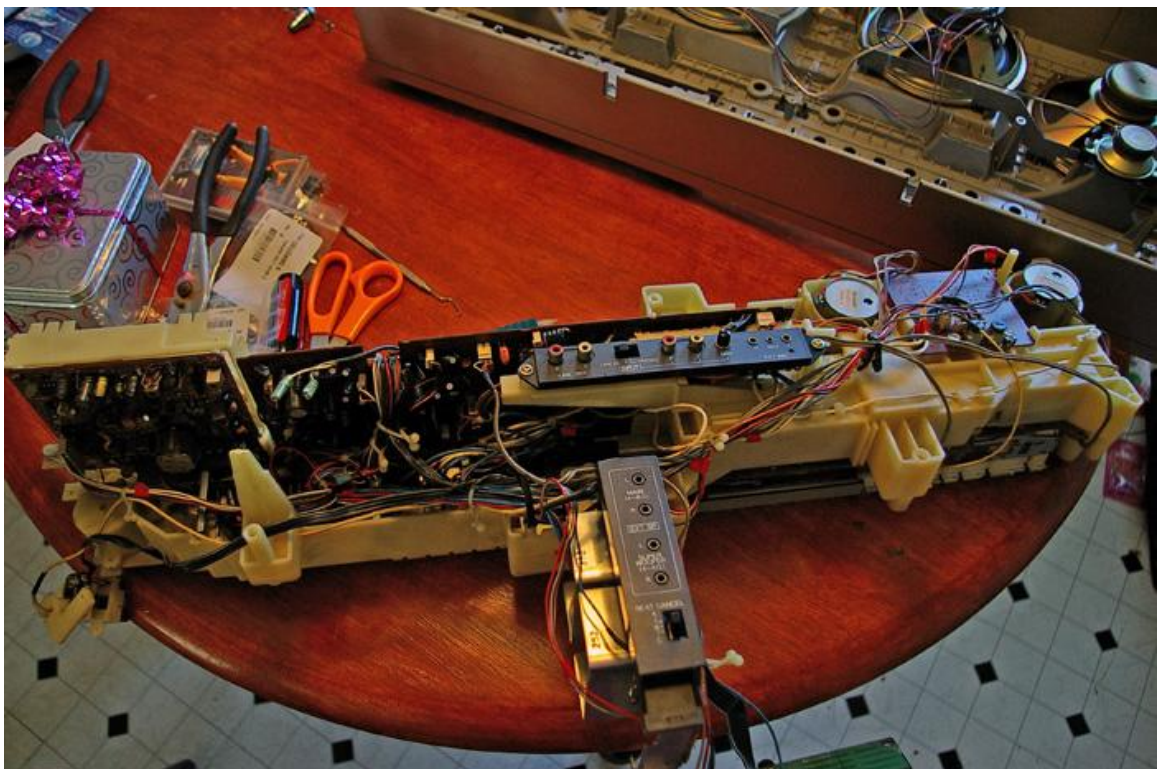




Almost there. To the far right of the boombox, there is another connector by one of the woofers. Disconnect this plug.



Now, I cannot stress this enough - **VERY CAREFULLY!!!** - lift and remove the complete bracket housing from the inside of the boombox. Do not force anything at this point. If something is caught, find out what it is before continuing.

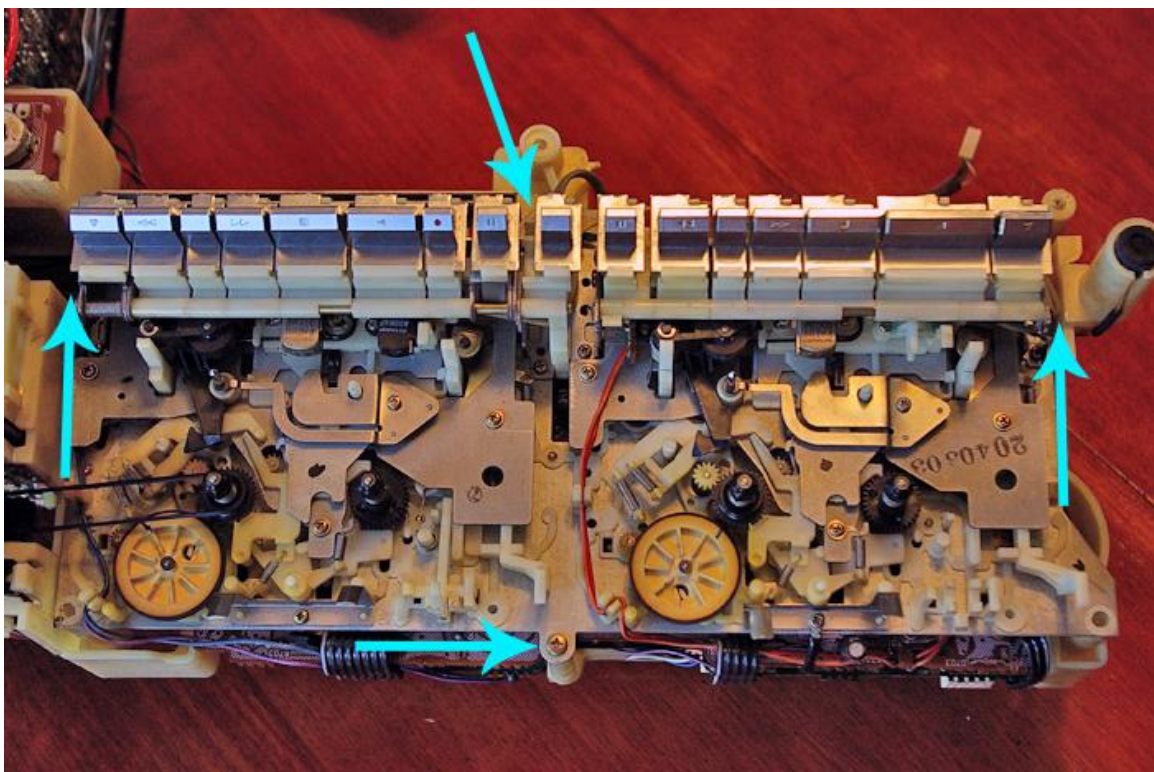




This would be an excellent time to clean out some dust bunnies and general nastiness from the front cover.

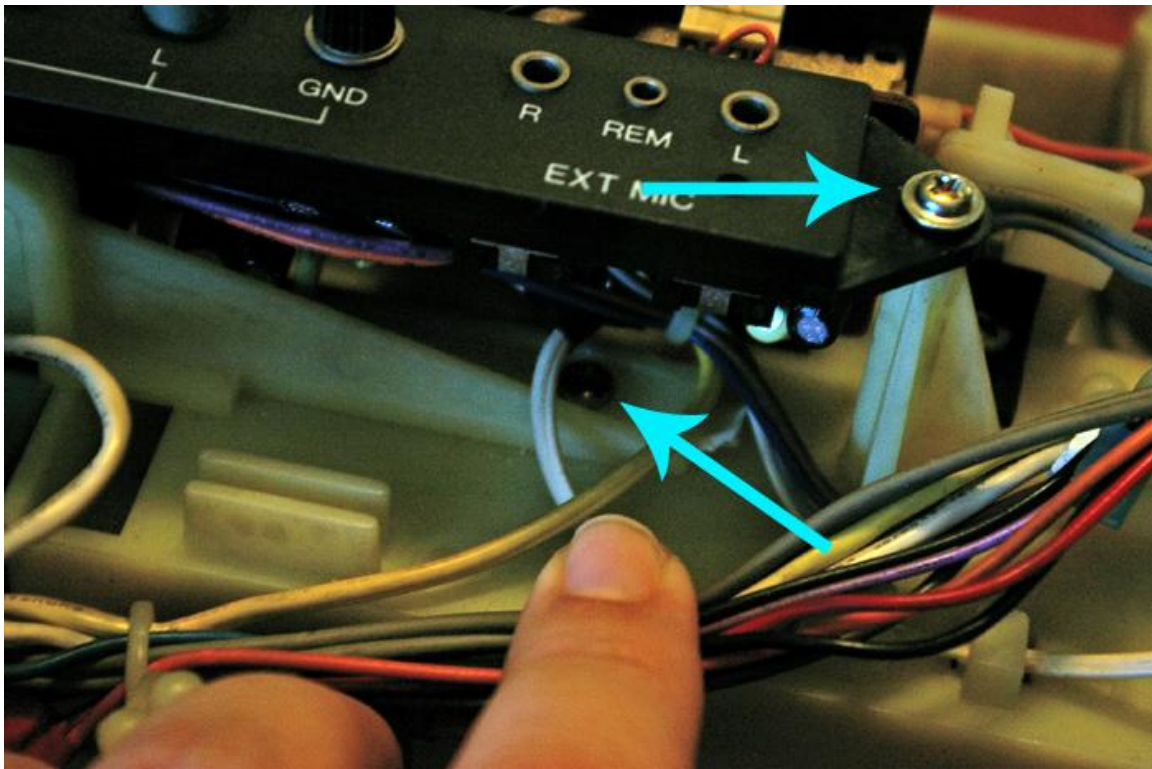


There are five screws holding the tape deck mechanism to the plastic housing. Four of the screws are rather obvious.

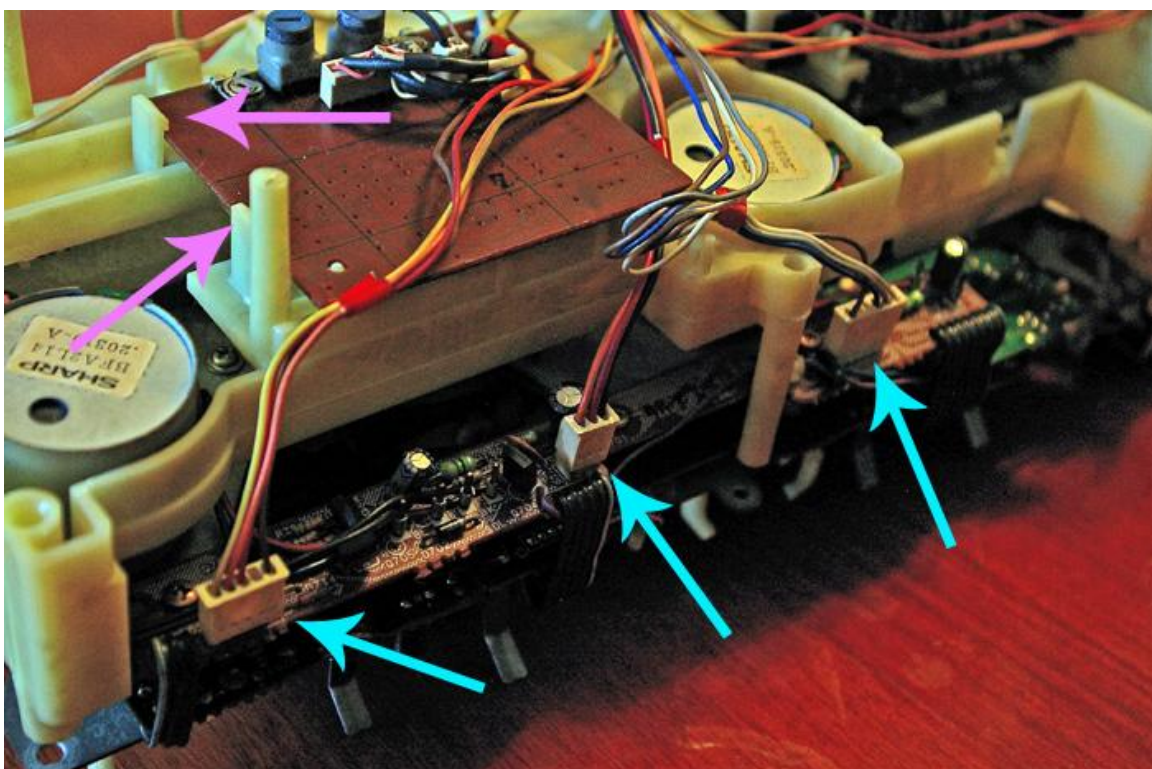




The last one is somewhat hidden. It's on the other side, partially obscured by the black, input connector block. Remove the screws holding the input connector block to the housing and then remove the last screw holding the tape deck mechanism.

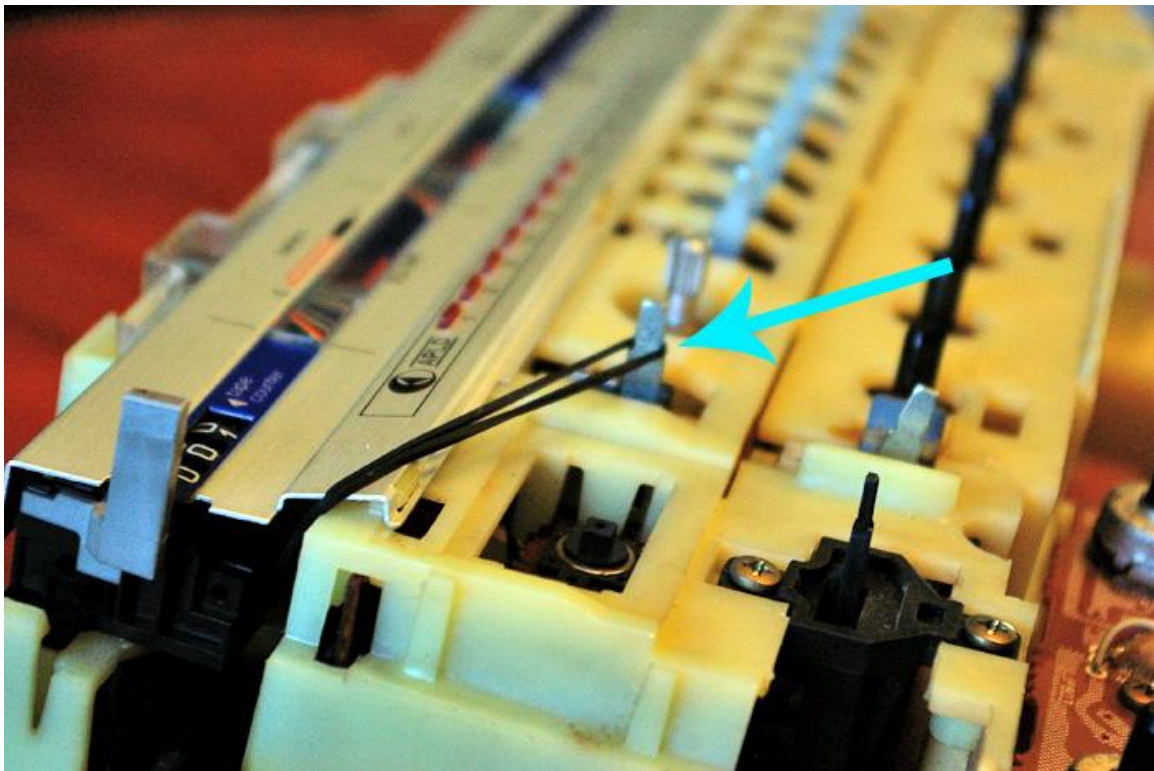


There is also a plug (not pictured) directly underneath the input connector block. Disconnect the plug after removing the screws for the block. Next, disconnect the plugs as indicated by the blue arrows in the picture below. Also, it might help to loosen the square PC board above the plugs by GENTLY prying back the catching posts as indicated by the purple arrows.



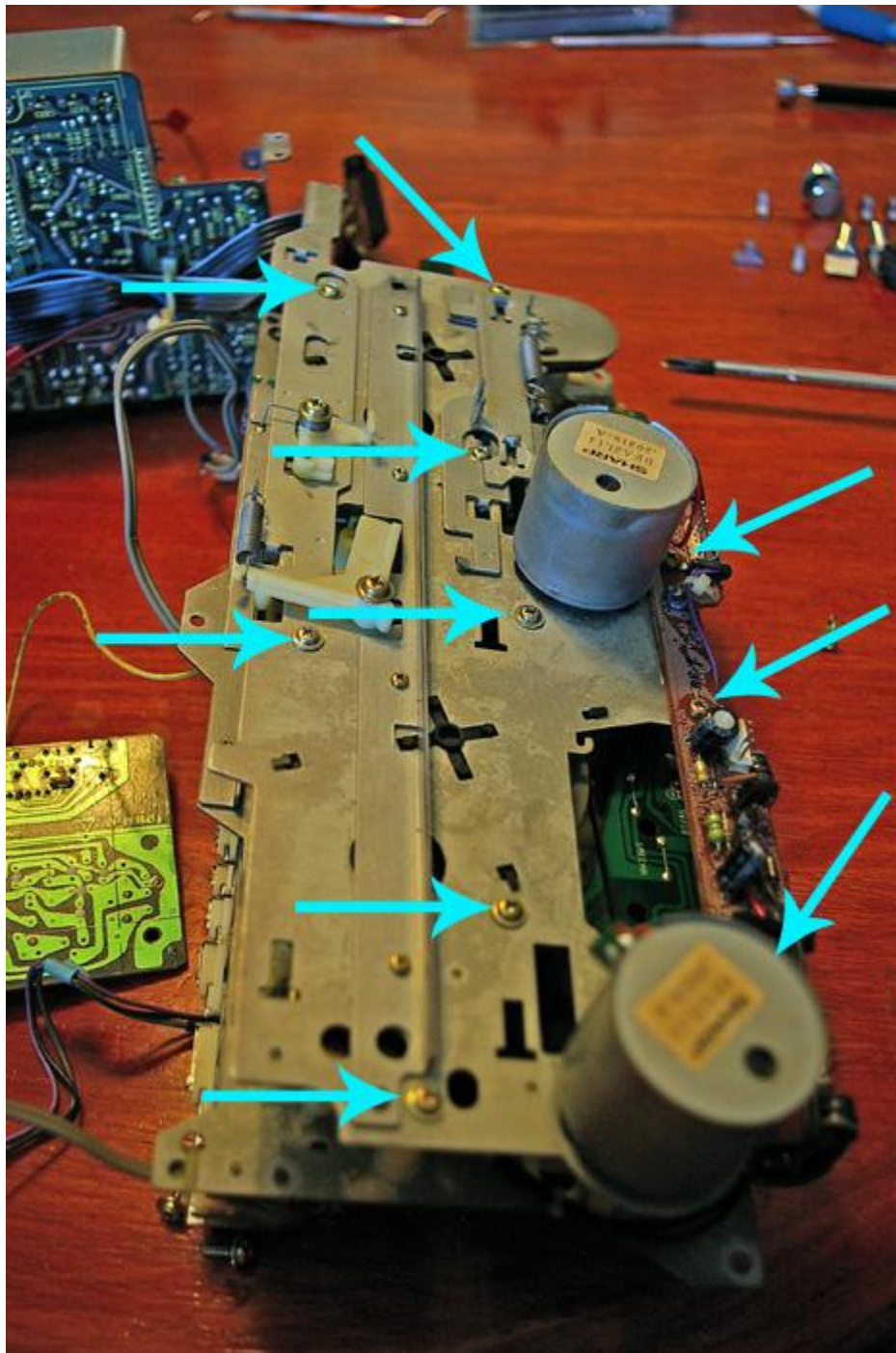


If you need to replace the belt that operates the tape counter, pay special attention to its location. One of the posts/spindles is underneath the dial faceplate and it is somewhat awkward to get the belt around the post before connecting the tape deck spindle. In this example, I've already replaced that belt. So, in order to keep tension on the belt, I decided to loop it onto one of the front switches. Believe me, this will definitely help.



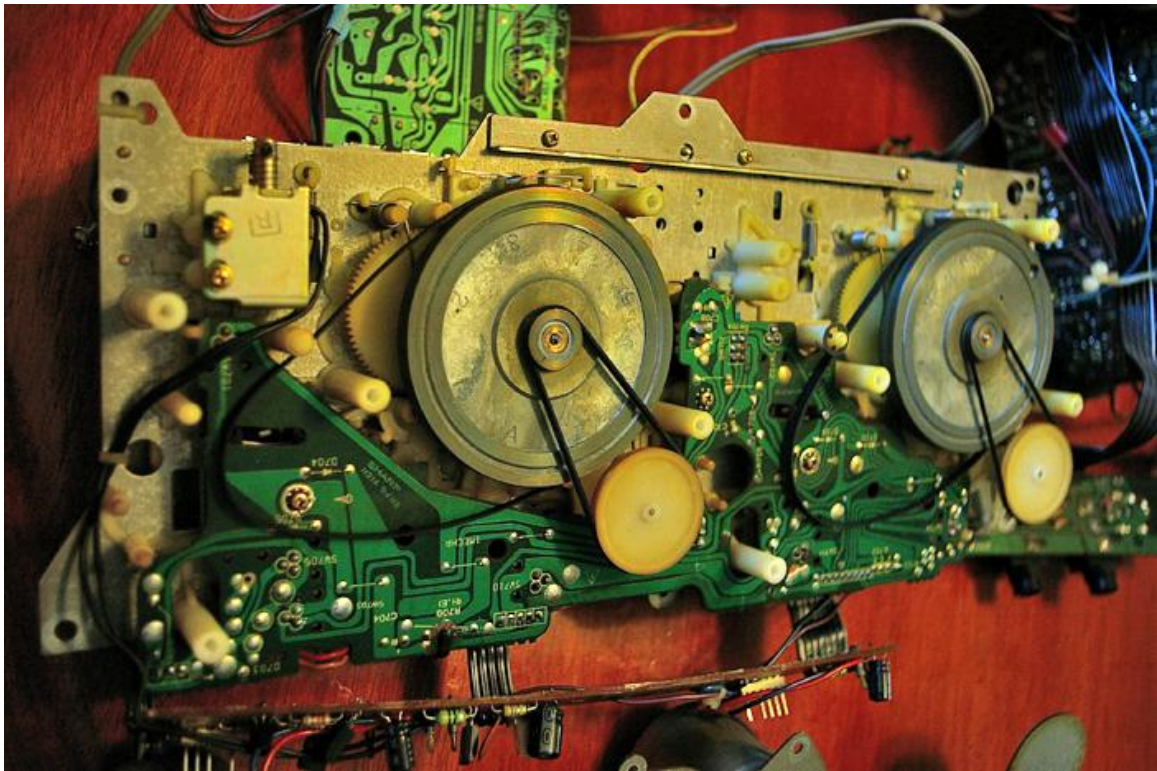
Now that the tape counter belt is disconnected, you can lift out the actual tape deck mechanism. BE VERY CAREFUL!! There is an extension that is hooked onto a black, plastic arm underneath the dial faceplate. You will have to work the extension off the arm before completely removing the tape decks.

Once the tape decks are out, flip them over and remove the screws as indicated in the picture below. The three screws on the right side of the picture might not have to be removed, but it made things easier for me.

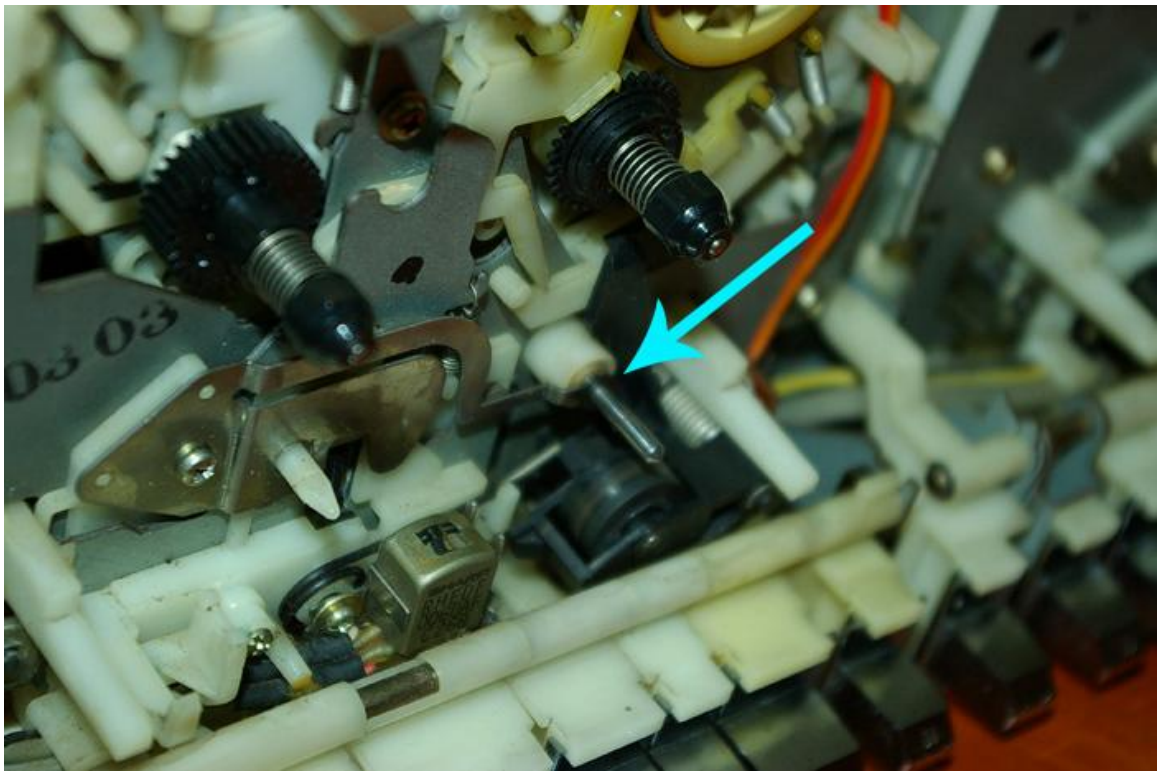


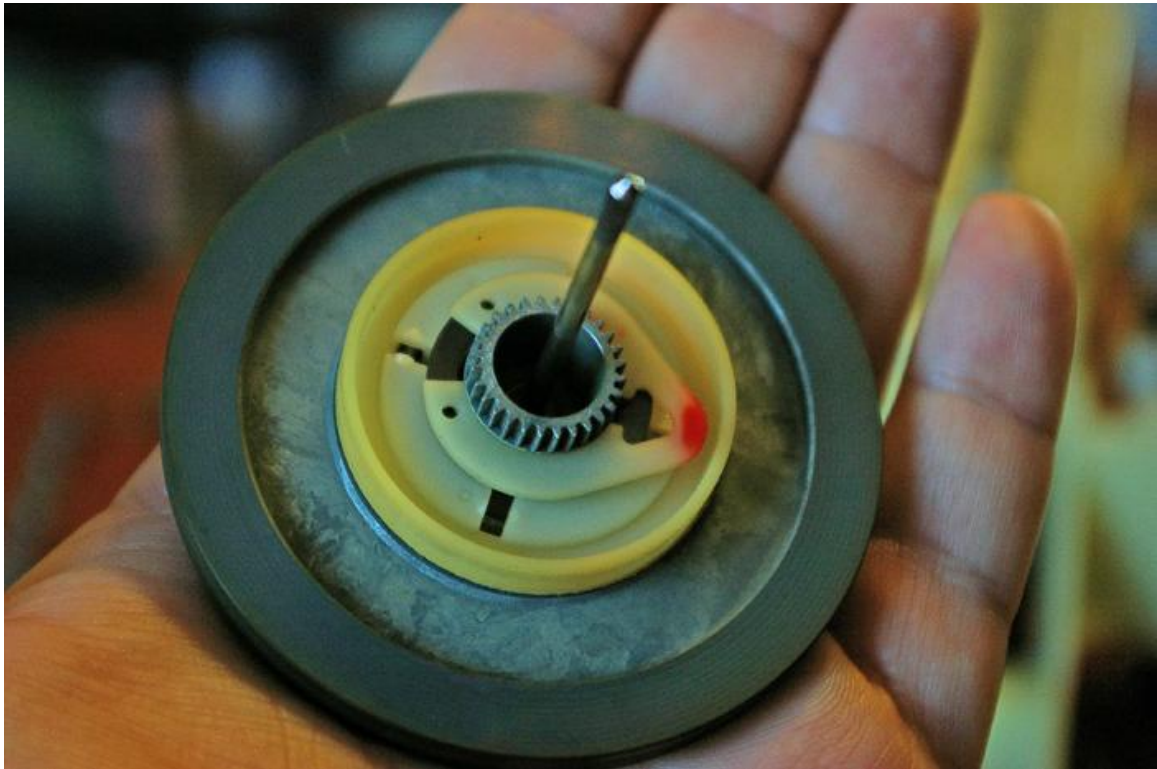


We finally reach the belts!!!



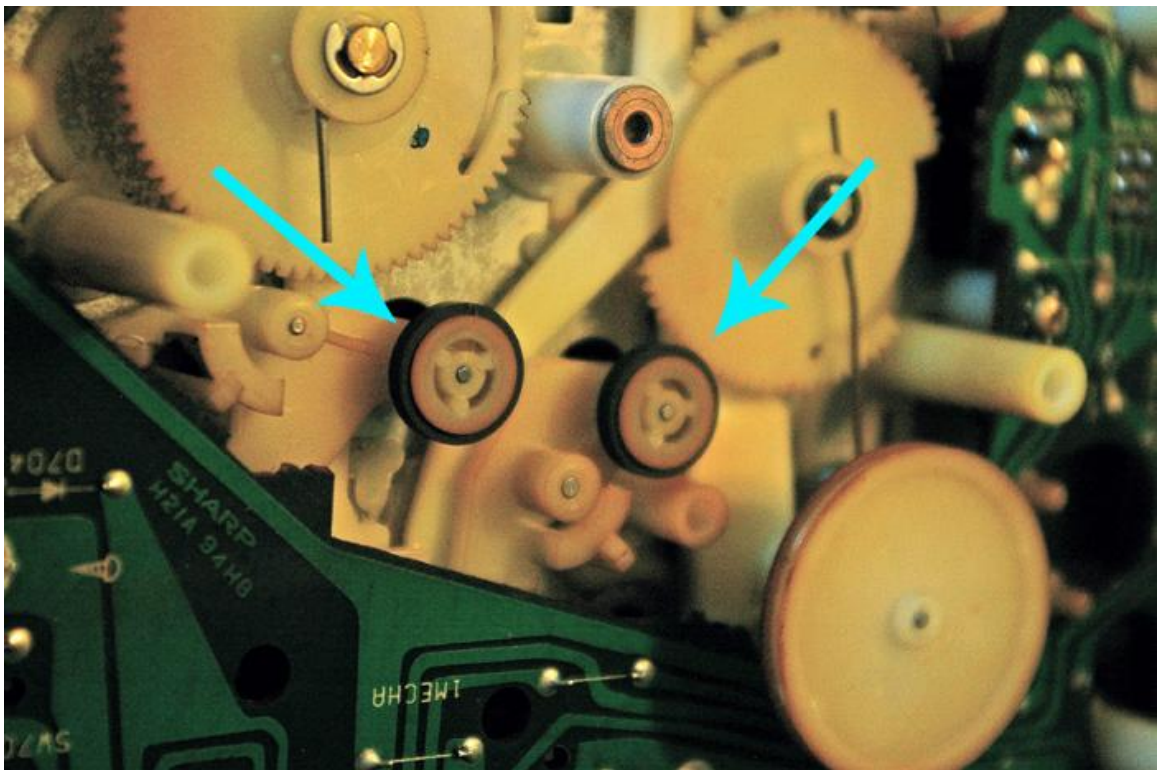
Remove all the old belts and CAREFULLY turn the tape decks over. You will need to remove the flywheels without losing the little washer that slides over the posts.





One of my flywheels was slightly different from the other; there was a small "scoop" in the outer edge of the flywheel for Deck #2. If yours is the same way, pay attention to that on reassembly.

Now that the flywheels are removed, clean the small idler wheels that were hidden. There are two idler wheels for each tape deck. It probably wouldn't hurt to clean the plastic on the flywheel too.

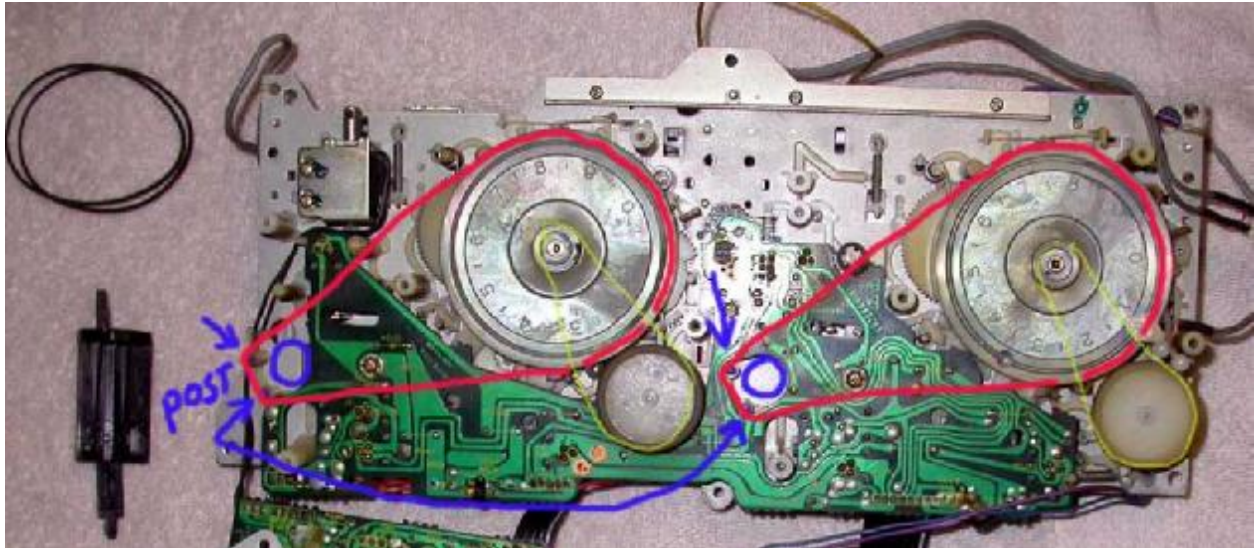


Once the idlers are clean, inspect the entire tape deck mechanism for dust, dirt, and general grime. Clean it now before reassembly.



That's it!! Now the fun part begins - putting everything back together. Replace the flywheels and their small washers – steady hands are a must. You DO NOT want to drop the washers and lose them in the tape deck mechanism!

Install the large, flat belt around the flywheel and around the plastic posts as illustrated in the picture below. This is a tremendous help when trying to get the belts around the motor spindle. Install the secondary belts. Make sure that the square belts are not twisted. Reattach the tape deck plate with the motors and use a small hook to release the flat belt off the plastic posts and onto the motor spindles. Be very careful and don't scratch the PC board!



*(Photo courtesy of Frank Jiang aka FYJ2972)*

Continue reassembling the boombox by retracing the steps outlined in this tutorial – reverse order, of course. Double check all plug connectors and screws. You don't want to end up with screws remaining!

After re-belted and cleaning the idler wheels, the GF-777 should PLAY, FF, and REW with the best of them! It's amazing what a little isopropyl alcohol and new belts will do.

Before closing up completely, you might want to adjust the motor speed for each deck and check the azimuth on the play heads for each deck.

To adjust the motor speed, insert a small, flat-head screwdriver (preferably plastic and approx. 3/32" head size) into the opening on the back of the motor. Carefully turn the screwdriver until you feel the slot of the screw. Turning the screw clockwise will increase the motor speed. Likewise, turning the screw counter-clockwise will decrease motor speed. If you don't have the "official" means of testing correct speed (e.g. test-tone tapes, oscilloscopes, etc.), you might have luck with my method.

I had a commercial copy of a U.T.F.O. cassette as my test cassette. I ripped my commercial CD of the same U.T.F.O. album and converted the tracks to MP3 files, which were then copied onto my MP3 player. I played the tape and MP3 player at the same time until the tracks were matched as closely as possible. When you have an extremely slow phasing effect (when the two sources seem to cancel each other out), you've got a tape speed that will be very close to true.

To adjust the azimuth for the play head, first remove the faceplates from the cassette doors. You will notice under the tape door there are a couple of small holes, maybe three. You can access the tape head through the largest of the holes with a very small Phillips-head screwdriver. Put a tape in and press PLAY and, very gently, adjust the tape head by turning the screw left or right. Try just a little at first and you'll notice the sound change. Using quality headphones will help tremendously with this. You should be able to locate the correct position before too long!

*(Azimuth tip courtesy of Mirko Henriquez aka Beatbox)*

I hope this tutorial made sense. If you have any questions, please contact Fatdog on the Stereo2Go.com forum!

Thanks FYJ2972, Litfan, Beatbox, and many others whose advice allowed me to repair my GF-777!

