Subject: Restoring a 1951 Philco 5W mono console... Thinking a 7 Pi! (Have a few questions)
Posted by JasonG on Thu, 13 Feb 2014 17:14:05 GMT
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Hello everyone,
I am in the process of restoring/modifying a 1951 Philco AM/FM phonograph console I was given... My mother-in-law is an in-home hospice nurse; one of the elderly women she was caring for passed away and had a garage completely packed FULL of junk, all of which was headed for the dump, this Philco was under a pile of old clothes and absolutely filthy (it looked destroyed!). I planned on just yanking the amplifier out of it and scrapping the cabinet, but spent some LONG hours cleaning and polishing, I was surprised that the mahogany is in near-perfect condition!

It's a 1951 Philco 51-1733 mono 8-tube console; 5 for the AM/FM, 5AZ4 rectifier, 7F8 oscillator/mixer/phono preamp, and a 6Y6G power tube. There's a decal that states it outputs 5W, which after researching the 6Y6G, is near the maximum of the tube's capabilities. It has a pretty chintzy output transformer, a little paper-laminate deal, with a single tap for a 4 ohm speaker, so I am gonna spend a little coin and get a nice BIG Edcor transformer for an 8 ohm nominal load and better frequency response. I'm going to recap it, and likely replace the power, rectifier, and preamp tubes (I'll use Bennic polys for the amplifier stage and preamp, but just good quality NPEs in the AM/FM stage and rectifier)

The turntable's motor runs fine, but the belt is missing and a couple random chunks of broken plastic fell out of it, and honestly I wouldn't really use it much anyway; I wouldn't trust it with my records, which I don't listen to that often to begin with. My plan is to feed the output of a digital media player (phone) into the phono input, that way I wouldn't lose the functionality of the the volume/tone/source knobs. Honestly though, I'm still drawing the schematic, so figuring out how to do this is a ways off (dunno if the phono preamp has any EQ built in, like RIAA, nor what the input voltage should be, probably pretty low which may present a challenge).

ANYWAY- The OEM speaker is a 4 ohm 8" (or close to 8") mounted all the way at the bottom of the cabinet... No good. I'm going to stay mono for this project (at least at the moment), but want to build a separate speaker to go along with the console. I was originally looking at building a K-horn or Jubilee, but was discouraged by the complexity of the cuts that are required. I wanted something with major sensitivity, and when I told my wife about corner horns, she REALLY liked the idea. So, I found Wayne's 7 Pi, and think it's probably perfect... she also REALLY likes the looks of the 7 Pi, surprisingly! Whats even more surprising is the part she likes the most is the big midhorn, the part I figured she'd HATE, but NO! Especially when I told her that I will make the large, flat front panel (the back of the woofer enclosure) have a woodworking pattern similar to the doors on the Philco (I'll likely use MDF, but plan on using a mahogany veneer and trying to figure out what the finish is on the Philco to match it).

Could someone please provide me (nosaj122081@gmail.com) the plans for the 7 Pi cabinet and crossover?

I already have a B&C DE250 for the top-end, and after reading lots of posts, think the Omega is gonna be the woofer I go with; seems like the biggest selling point of the 2226 is it's lower distortion, but for this little SET the Omega will mate better. I would imagine that the crossover has

modifications that need completed depending on which CD and woofer you select?

I've seen some posts mentioning an 18" woofer, but can't really find any background information on that. What are the 7 Pi 18" options, and what is gained compared to the 15"?

With <=5W, I am really wanting every last bit of sensitivity I can get. Now, for my crazy, unlikely to work thought: would it be possible to utilize dual bass-bins configured vertically? Say, 1 bass-bin, then the mid & tweeter horns, then another bass bin? Almost like a horn-loaded WTMW? Obviously the woofer crossover would require tweaking for dual woofers, and the M+T crossovers would need less padding (if they're not padded at least 3dB to start with, my idea is dead before it makes it outta the gate). I could construct in such a way that C-C would work out I think.

My plan for this is in the master bedroom, essentially a very large, old-school docking station.