
Subject: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [gofar99](#) on Sun, 01 May 2011 02:34:47 GMT

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Hi Everyone. The Prototype KT120 mono-blocks are up and running and will be demo'd at the LSAF. Powerful, even with zero time tubes they sound rather good. Look for a diy project on them as well as future kits. These amps are not for the faint of heart nor weak back. In the present configuration (chassis is too small) they weigh in at over 28 pounds each. Power output is approximately 40 watts RMS. Testing to follow as soon as I can.

File Attachments

- 1) [KT120 Thunder Watt.jpg](#), downloaded 18409 times
 - 2) [KT120 Thunder Watts.jpg](#), downloaded 18323 times
-

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [Wayne Parham](#) on Sun, 01 May 2011 03:21:46 GMT

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That is one meaty amplifier. Looks great! Can't wait to hear 'em...

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [gofar99](#) on Sun, 01 May 2011 21:31:45 GMT

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Thanks, They still need a bit of taming, but in the raw form right now can develop 46 wrms into 4 or 8 ohms. Initial spectrum analysis shows more thd over about 1/2 power than I would like, but that is just a detail and can be cleaned up.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [gofar99](#) on Sat, 28 May 2011 03:12:22 GMT

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Hi Everyone, The KT120 amps were in use for a while at the LSAF. As you might expect, they really put out serious sound. The design process is on going and a number of refinements underway. These are shaping up as mega power amps (at least for a class A tube design. Power output is coming up to spec in the 40-45 watt RMS range. They are so mighty that one smoked my test load bank. The smell of smoldering plastic was the first clue. Oops. I have some

upgraded parts on order and expect the design to be finalized in about 2 months. Kits will follow at a later date (it takes time to source things like circuit boards and chassis). In accordance with the way I design, as soon as the design is finalized I intend to post it under group builds as a diy project for those of you who like to build from scratch. My experience is that there are at least two types of audio enthusiasts, those who build from scratch and those that don't. I like to cater to both.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Thu, 16 Jun 2011 22:15:02 GMT

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Hi Everyone, I'm still waiting for bigger power transformers for the amps. I have made some design improvements since the LSAF. Even with the under sized transformers they deliver close to 40 W RMS. These amps should be just the ticket for folks using thing like Maggies that are power hungry. Stay tuned for developments.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Sat, 02 Jul 2011 03:13:42 GMT

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Hi, Power hungry listeners. I have installed the new transformers and the amp behaves quite well. Unfortunately, I smoked my PC based DSO and can not do accurate measurements on it until I get another one. The stand alone DSO I have just can't keep up with the PC one. I sent the fried one off to the repair shop and they called back and wanted to know what I did to completely smoke the board and make it un-repairable. I suggested that test gear should be protected against 175 volt spikes on the ground. They didn't see the humor in it. Anyhow the KT120 amp sounds quite nice and has lots of muscle. Using my back up test gear I show a power output right on design spec at 45 watts rms. Now all this comes with a lot of heat as the B+ is 440 and idle current is 310ma. Each mono block consumes roughly 190 watts to make 45. About right for a class A U/L amp. More to follow as soon as I can replace the scope.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [Wayne Parham](#) on Sat, 02 Jul 2011 03:55:45 GMT

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Bummer on the PC card smoke. Can't wait to see the results when you get it back going again!

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Sun, 17 Jul 2011 01:16:45 GMT

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Hi Everyone, Progress is in the offing.... I got the replacement DSO and now can get back to the KT120 Oddblocks. One is now on my bench. I expect some good news in a week or so. The new transformers are in place and initial measurements show right on 45 wrms in class A U/L mode. Right on target for the design. These amps really demonstrate the thermo in thermionic equipment. Folks in the north will love them in the winter. Down here in Arizona, well..... not needed at this time of year.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Tue, 26 Jul 2011 03:33:35 GMT

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Hi Everyone, A progress report. These amps are beasts. My personal sense is I would like to be able to roll tubes in the outputs, but with a sole brand this is not possible. Powerful certainly, detailed the same but I would like a choice of flavors. I have a question for any who care to respond opinions on monoblock kits at about \$800 each? Slightly more than the cost of the KT88 amps.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [Wayne Parham](#) on Tue, 26 Jul 2011 03:38:47 GMT

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Oh, man, that's an excellent price. Very competitive. Looks good and sounds great too! What's not to love about that?!!

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Wed, 21 Dec 2011 18:33:55 GMT

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Hi Everyone, An update on these beasts. The initial components are on hand and the first kit builds (so we can write the instructions) will probably begin next week. Price is still open a bit as we haven't been billed for all the work yet. Since the design first was posted, I made a few small changes and these amps are special (even if I do say so myself). The changes are going to be posted for the smaller (relatively as KT88s are not really all that small) amplifiers. Raises them a notch or two as well.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [ROCKMANDRAKE](#) on Wed, 21 Dec 2011 20:33:28 GMT
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Dear Sir,

congratulations for your work...

I am amazed as you are using only one 12AX7 as a first stage

Could you please share schematic ?

Best regards from France 'n' happy christmas

Rock

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [gofar99](#) on Thu, 22 Dec 2011 01:24:00 GMT
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Hi, If you keep a design clean and simple you do not need as much gain. My sense with many designs is they start out with a more or less standard configuration and then when it is built find flaws. They then add things to fix the flaws. My projects generally start out with an idea of what needs to be done. Then I figure out what configurations will do it best (at least in my opinion). Then I build it and do a lot of testing and tweaking to get it to do what it should. I use configurations that many designers shy away from for various mostly historical reasons. I am also not afraid of using solid state devices when I feel they will do best what I want. All the power supplies in my projects are SS, I use SS regulators in the B+ on the preamps and IC constant current sources in the power amps. Purists cry foul but the results are what I care about. A good example is the distortion level in the latest KT88 monoblocks. At one watt it is at the thresholds of what I can generate and measure (around 0.05%). I also strive for high signal to noise levels. My usual target is -90dbv. I don;t want any hum or noise at the speaker. So what all this means is that the power amp designs are deceptively simple. No parts that don't contribute to purpose. You will observe that there is only one capacitor in the signal path. Also I use a rather trivial amount of negative feedback (3-4 db) to insure stability with any kind of load, not to fix the distortion or frequency response as is often done in other designs. The various parts (like the particular transformers and capacitors)are chosen to work together. The end result is amplifiers that perform excellently. I have attached the schematic of the amp below. How you build the power supply is your choice, but it does need to be clean. I recommend against tube rectifiers because of their higher internal impedance, but with careful application they can be used.

File Attachments

1) [KT120 OddBlock Main Circuit October 22, 2011.PNG](#),

downloaded 25795 times

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [ROCKMANDRAKE](#) on Thu, 22 Dec 2011 08:10:31 GMT
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Dear Sir,

thank you very much

Best regards from France

Rock

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [ROCKMANDRAKE](#) on Thu, 22 Dec 2011 11:00:19 GMT
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Dear Gofar 99,

if you like clean and simple design, please have a look at my blog

<http://petitesfabricationsmusicales.blogspot.com>

Regards

Rock

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [gofar99](#) on Thu, 22 Dec 2011 16:16:28 GMT
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Hi, Like you said nice clean designs. Tres bon. We are clearly targeting different folks with our products though. Both in cost and tube vs solid state. I do some projects in SS and like them as well, just I like the challenges tubes present. I also like the sound. There are many individuals that say one kind of sound (SS, valve, triode, SE) is the best. I try to steer clear of that stuff. I just build and design what I like to hear without prejudice to what others like. Some folks like the same things and we sell kits to them (or freely give diy assistance on building from scratch). A bit

OT here, but my two biggest passions are to (1) design audio equipment that excels and (2) to encourage new diyers to get into the audio field. If pressed, the second one is really the one I like best.

Good listening
Bruce

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [OWRODNEY](#) on Fri, 06 Jan 2012 19:36:21 GMT
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Hi Everyone

My Name is Rodney and I am the other half of OddWatt along with Bruce.

I have been working on 4 pre production versions of the KT120 amp which we are officially calling the OBHO (ODDBLOCK HIGH OUTPUT).

I have one of the 4 up and running and the results were great. I expect to have 2 of these in Bruces hands for testing in a week or 2 for his testing and input.

If all goes well, expect kits in mid March.

Replay with any questions.

Rodney

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks
Posted by [Wayne Parham](#) on Sat, 07 Jan 2012 00:56:11 GMT
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Dude, that sounds reeeaaally sweet. Can't wait to hear 'em at LSAF 2012.

Didn't you guys bring an earlier version of that amp last year? I remember that you had one new powerful amp there. The one I heard in your room was really nice.

And I ran one of your amps on Sunday too, as you recall. Not the big amp, but definitely enough power for my needs. Very nice sound!

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Sun, 08 Jan 2012 01:27:28 GMT

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Hi Wayne, yes we had some early ones there. The present versions are far better. The originals were rather good, but the level of detail and "air" in the new ones is so much greater you would think they are different amps. And as what would be obvious, they are really powerful. True to form, though, my belief in the first watt concept, they are quite clean at lower power levels. They just cross the 1% distortion level at 25 watts RMS. Not to bad for a class A design. There is nearly 25 more on tap to keep your speakers busy.

The amp you tried at LSAF was a Poddwatt. I only rate them at 5 watts per channel, but they are really nice sounding watts. We will be bringing one or more of them this year.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Wed, 22 Feb 2012 22:34:29 GMT

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Hi Everyone, An update. I have a pre-production set of KT120 mono blocks. I have been using them for about a week now. These amps are not for the faint of heart. Powerful, stunning sound, heavy (37 pounds each) and just plain awesome looking. I will have them at LSAF so you can see for yourselves what a pair of push pull class A U/L tube amps can do.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [Wayne Parham](#) on Thu, 23 Feb 2012 00:53:54 GMT

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Can't wait to see and hear 'em!

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gigi6c](#) on Thu, 21 Nov 2013 05:55:59 GMT

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Where is the circuit diagram of PSU for KT 120?

THANK YOU

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Fri, 22 Nov 2013 02:00:46 GMT

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Hi, I'm on the road at the moment and don't have the files with me. I'll get back to you Saturday or Sunday.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Sun, 24 Nov 2013 02:02:43 GMT

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Hi, The PS is attached.

File Attachments

1) [OBHO PS May 19, 2013.jpg](#), downloaded 5888 times

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gigi6c](#) on Mon, 25 Nov 2013 10:26:27 GMT

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THANK YOU DEAR
YOU HAVE THE BUILT, THE UNIT POSTED

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Wed, 27 Nov 2013 01:46:21 GMT

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Hi The posted power supply is the one that is virtually identical to the earliest ones and is the current one used. Our kits are nearly identical to the diy posted projects. This is intentional as we want to make quality audio available to everyone without having to go broke in the process. We support both the commercial kits and the diy projects the same. Our experience is that because of skill differences some individuals like to source all the parts and build a custom version of our designs. At the same time there are many other individuals that do not have that level of skill or desire and for them we offer the kits.

So while there is an evolutionary process in the designs and some have significant improvements over a period of years, the KT120 amplifiers are mostly unchanged. The power supply they use is now common to all the large amps.

I hope this answers your questions, if not please write back.

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [Nounours18200](#) on Wed, 01 Jan 2014 20:30:31 GMT

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These monoblocks are going to probably be my next projet: I have built dozens of DIY devices, but this will only be my second tube project (after a tube DAC...).

Can we have more feedback from people having already built these monoblocks, particularly regarding the musical quality ?

Thanks !

P.S.: feedback regarding the difficulty to buit this amp (construction tips, bias setup,...) wouls be appreciated ! By the way, what is its weight ?

Subject: Re: KT120 Class A Push-Pull U/L Mono-Blocks

Posted by [gofar99](#) on Sat, 04 Jan 2014 05:00:14 GMT

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Hi, Go to the [diyaudioprojects.com](#) forum on tubes. There are numerous comments. Also on Oddwatt amps in the same section. As for difficulty they are rather easy to build and trouble free. The KT120 mono blocks weigh about 30 pounds each when you use the recommended transformers. Since the amps were designed around those particular transformers the use of others may (or may not) compromise various aspects of the performance and stability.
