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Subject: Schematic for Kustom Combo  
Posted by [cflavaty](#) on Thu, 27 Jan 2011 16:17:24 GMT  
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Hello, I am a new member of the forum and need help finding a schematic for the Charger bass combo. It's a tuck and roll model from the early 1970's. I use a tech here in Madison to do my work so it's for his use. The combo is in fairly decent shape, in fact I was just using it with a line out from my SWR Baby Blue head and it sounded quite decent except for a large amount of hiss. The tone controls on it have minimal impact except to increase the hiss. My suspicion is that we will replace the capacitors. Any help would be appreciated. My goal is to restore the thing. It is the same model I used in High School stage band in 1972-75 so I have more than a passing interest in it. Thanks, Chuck

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Subject: Re: Schematic for Kustom Combo  
Posted by [chicagobill](#) on Thu, 27 Jan 2011 17:00:17 GMT  
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Welcome to the place Chuck.

If you PM me your email address, I will send the schematics that your tech will need.

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Subject: Re: Schematic for Kustom Combo  
Posted by [cflavaty](#) on Fri, 28 Jan 2011 06:57:02 GMT  
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Thanks Chicagobill...PM sent

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Subject: Re: Schematic for Kustom Combo  
Posted by [kustomoholic](#) on Sat, 29 Jan 2011 16:30:04 GMT  
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There should be a schematic on the top aluminum panel on the chassis on the inside. I have had 3 Chargers and all 3 had one. If not I can locate my Supersound Manual with all the SS series schematics If you still need one..

Craig

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Subject: Re: Schematic for Kustom Combo  
Posted by [cflavaty](#) on Sun, 30 Jan 2011 10:55:08 GMT  
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Thanks Craig,

I just removed the amp from the cabinet and it was located where you said it would be. Also, it's the same as what I received from chicagobill. PC5033 power-amp and PC5066 pre-amp with an interconnect diagram.

Chuck

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Subject: Re: Schematic for Kustom Combo  
Posted by [kustomoholic](#) on Sun, 30 Jan 2011 15:19:42 GMT  
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Glad I could help...Now would be a good time to get the pilot lamp replaced with the amp apart...of course if yours is still good no need for that...Takes a GE335 bulb..They are still available from Mouser Electronics.

Good luck with the repairs..let us know what it takes to get rid of the hiss.

If you get a chance at an Altec 421A 15" speaker ..grab one...It'll make that Charger sing It's worth every penny it will cost...It's like night/day difference in the response range of the driver Standard 15" tops out around 2-4khz...Altec 421 runs up to 8khz range..Sounds outstanding!!!

Craig

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Subject: Re: Schematic for Kustom Combo  
Posted by [cflavaty](#) on Sun, 30 Jan 2011 15:41:05 GMT  
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Craig, You gave me the idea to pop the back off just now...I had a suspicion it was an Altec speaker when I bought it because of the silver dust cap. In fact the label says Altec 421A, so looks like I have a winner.

Thanks, Chuck

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Subject: Re: Schematic for Kustom Combo  
Posted by [kustomoholic](#) on Sun, 30 Jan 2011 15:52:56 GMT  
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SWEET!!!!!!! I had to get one for mine... A recone from a recommended vendor on this site...Hope you got it for a great price!!!!!! I was recently looking at a Frankie head and cab and it was hard to act bored when I popped the back off and gazed upon a JBL D130F at the sellers apartment...I mumbled something about it being one of the options Kustom offered and threw the back on it and a couple screws.. paid the guy and fled!!! with the prize...

Craig

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Subject: Re: Schematic for Kustom Combo  
Posted by [cassent5150](#) on Mon, 31 Jan 2011 01:51:56 GMT  
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"Kustomoholic"

"YOUR AN ANIMAL MAN", I can't say I haven't done the same a few times myself though. You gotta love it when you get way more than your moneys worth. In fact it happened a couple weeks ago when I saw a K200B-1 with the matching cabinet for 175.00. I drove over 2 hours to get it and the guy said he'd just take 160 since I drove so far. NO RIPS OR TEARS AND NO CIGARETTE BURNS just clean as a whistle, I smiled and said OK and never looked back. I totally agree with you on the altec 421A, super sound and versatility for a 15" speaker. I've got the Charger like Chuck's with the altec 421A, but it takes a BACKSEAT to a K100-1 with the same altec speaker. They're in my photo Bucket

<http://www.flickr.com/photos/57807996@N04/>

picture 005 and 003 of my Kustom Collection. I got a hand full of the bulbs. Chuck; PM me an address to send it and I'll get it to you. Steve C

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Subject: Re: Schematic for Kustom Combo  
Posted by [cflavaty](#) on Mon, 31 Jan 2011 13:19:26 GMT  
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Thanks Steve, PM sent and looks like we're going to get quite a blizzard over the next 3 days here in South Central Wisconsin. Forecast calls for 20+ inches of snow.

Chuck

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Subject: Re: Schematic for Kustom Combo  
Posted by [blindmouse](#) on Tue, 01 Feb 2011 18:09:07 GMT  
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Hi,

I'm the brandnew owner of a black 1973 Kustom Charger Bass Amp. It comes with a CTS speaker that is rated 8 to 16 Ohms. My Ohm meter reads 11.2 Ohms so I think it will be close to 14 Ohms. Question: at what impedance the Charger amp will put out it's full power? Is it 8 Ohms as I think it is?? I still have a EV 15B lying around, so that will be an option.

The big filter caps are leaking and the pilot light is out of work. Both caps and the pilot lightbulb are coming in soon, so I can bring the amp back to life. The amp needs some tuck and roll restoration, but I think I can handle that. Wheels are gone. It's a heavy beast. Don't have to run around with it, it stays in the rehearsal room. I'll bet it sounds beter than my 80W Peavey TKO.

Regards

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Subject: Re: Schematic for Kustom Combo  
Posted by [blindmouse](#) on Thu, 03 Feb 2011 19:54:35 GMT  
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Well, I had to search this forum before I started asking questions. Now I know the Charger is a 8 ohm amp. The 335 light bulb and the caps came in so I can make it running again. Just another question. On the schematic of the Charger there is one 3A SB fuse and there is something called a "thermostat". Now what I see on the inside of the back panel of the amp are two fuses. I don't know what the 'thermostat' looks like. You might understand I'm a bit confused. Is one of them fuses a 'thermostat??

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Subject: Re: Schematic for Kustom Combo  
Posted by [cassent5150](#) on Thu, 03 Feb 2011 21:48:10 GMT  
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I going to say the thermostat they're refering to is the thermal breaker mounted on the bottom of the amp heat sink between the two output transistors right next to the little diode mounted in a clip. I'll pull the cover off my charger chassis and see what the second fuse is for, it should only have one to protect the transformer and 3 amp is about right for the 5033 board. Steve C

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Subject: Re: Schematic for Kustom Combo  
Posted by [blindmouse](#) on Thu, 03 Feb 2011 22:00:03 GMT  
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I found the thermostat: it says 'Elkwood'. What's left are the two fuses. The voltage selector says: 230V. That's what comes out of the wall socket over here in The Netherlands/Europe. Maybe being an export model has got something to do with it.

Regards

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Subject: Re: Schematic for Kustom Combo  
Posted by [chicagobill](#) on Thu, 03 Feb 2011 22:28:55 GMT  
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Welcome to the place Blindmouse.

The Elmwood heat switch is connected to the heatsink, and will shut off power to the amp if the temperature of the output transistors gets too high.

Some European countries require fuses on both sides of the ac line, so that may be the reason for the additional fuse inside your amp.

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Subject: Re: Schematic for Kustom Combo  
Posted by [blindmouse](#) on Fri, 04 Feb 2011 08:04:11 GMT  
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Well, that settles that. One of them fuses must be a 3A SB, the value of the other I'll find out when it has popped, though I hope that will not happen. I purchased the Charger last week. I'm not unfamiliar with Kustom amp. Way back in the seventies Servaes Music shop in The Hague imported the huge Kustom amps and cabinets.

Way back then my band had a Kustom K-series IIIPA with 2x 3+2 cabinets, I played bass through a IIB CS bass combo and our piano player played through a Tuck and Roll Bass 150/2-15 combination. We hauled around a real piano and put two mikes in it that went straight into the 150B head. Now, for sentimental reasons, I have a Kustom I bass that is nice to look at and a black vinyl Kustom III bass head, that goes with me as a back up for my Fender Super Bassman head. And now there is the Kustom Charger only to be used in the rehearsal room. Not really a special collection, but as you see, I still put faith in the old Kustom amps