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Subject: K-250-4 export models?

Posted by [fieldflower](#) on Sat, 17 Jul 2004 18:18:17 GMT

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Hi all,

I have what looks to be an export K-250-4 and 2-15-G cabinet, and is wondering if anyone can tell me more about them...

The thing is I live in Sweden, and the amp is therefore adapted to the swedish standard of 230V. There is a music company sticker on the back that looks like it could have been a commercial import sticker (it has the model and serial number on it although it is partly covering the model and serial number plate, and it has an old swedish electrical approval logo, that wasn't required for private imports). The music company is long gone by now, and I haven't been able to find any info on it...

What is different about the amp (as far as I know):

- It is adapted for 230V (with 3-wire cord).
- The power and polarity switches are not in use, except for the lamps, that both light up when the amp is on. Instead of the original power switch there is a power switch on the back of the amp.
- There seem to be 2 extra fuses, located to the left of all the jacks in the back. There is also one fuse to the left of the module out jack, but I guess that is the original one..?

All three are 3,15A fuses.

- For the 4-button footswitch there "should be" a 6-pin XLR jack, but instead there are 2 tip-ring-sleeve jacks. The marking washers makes it look original. Have a look at them on: [http://www.davesdeli.se/fieldflower/Kustom250\\_trem\\_verb\\_fuzz\\_boost.jpg](http://www.davesdeli.se/fieldflower/Kustom250_trem_verb_fuzz_boost.jpg)

- The 2-15-G speaker cabinet is equipped with Electro-Voice SRO/15B speakers. They may very well have been exchanged afterwards, but I think they were available approximately during the same period, so You never know...

Can anyone tell me more about Kustom export 250's? Were there many of them exported? Europe? Sweden?

Does anyone else have a 250 that might have been a "new export" back in the days?

Is this amp a one-in-a-million or is it the only one..?

I'm guessing somewhere inbetween, but it would be a real treat to know..

BR, Pete

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Subject: Re: K-250-4 export models?

Posted by [arthur](#) on Sun, 11 Jan 2009 00:07:11 GMT

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Hello. I am a newbie to this forum which I am thrilled to have found. Yes, I have two vintage Kustom amps, one of which is a K250-4 which I intend to refurbish. Fuses blew while gigging and it went silent five years ago or so. According to a label on the back of the amp it was imported to Norway from Bob Lund Musik AB, Sweden, in the seventies. The amp seem to be quite like your model. It has 3 each 3.15A fuses and an extra power switch situated on the left hand side of the

backpanel. But no fuse on the right side. The extra power switch has to be turned on in addition to the blue pushbutton on the front. It has a 230 VAC 50 Hz transformer according to Scandinavian electrics standards. Not sure if mine has the dual functions on the jacks for fuzz and tremolo, but I will check it out. So no, you are not the only one with this amp. I love the sound and versatility of it.

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Subject: Re: K-250-4 export models?

Posted by [steven](#) on Mon, 12 Jan 2009 11:35:28 GMT

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Hey guys, something is possibly very wrong with those fuse ratings if they are wired on the primary a/c side of the transformer!

Since your amps are powered by twice the a/c line voltage here in the states the fuse rating should be half of what they are for 120 vac operation.

US fuse=3amp

yours should be 1.5 amp!

I would love to find out how and where these conversion fuses are wired in.

Do they have a fuse on each side of the A/C line, or are thses fuses placed in the negative and positive DC power rails of these amps?

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Subject: Re: K-250-4 export models?

Posted by [arthur](#) on Tue, 13 Jan 2009 21:44:14 GMT

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Hey again. Nice to have someone to comment. I have checked the backside of the K250-4 amp and it has the normal dual function jacks i.e. Tremolo/reverb Fuzz/boost and so on. Surely I must have the export version. Also checked the modified wiring for 230 VAC 50HZ. All connections are inside chassis. The added new items seem to be one terminal board, one 230VAC transformer with 2 x 38 VAC secondary and one Mains swith mounted on the backpanel and 2 additional fuses.

The connections are as follows:

The AC plug has 3 lines, one beeing earth which is connected to chassis inside the box. Let us call the other two lines A and B and let the Transformer be called T1. Let the (new) Mains switch be called SW0 and the Fuses F1, F2 and F3. Between A and B are 230 VAC. Between any A or B and Earth are approx. 115 VAC.

A is connected like this: AC plug - Terminal point (TB1)- SW0 - T1 primary 1.

B is connected like this: AC plug- TB2 - SW0 - F1 - Termostat (exist) - Mains switch S1 (exist w/blue lamp)- TB3 - T1 primary 2.

This means that both the new SW0 and the existing S1 Power switch must be operated in order to switch on power. The polarity switch is disabled, bud may be switched on to show the blue light (the lamps are gone but I will get new ones type 1829).

The T1 secondary has 2X 38 VAC with Earth in the middle. Each of the two leads carrying 38VAC from the secondary goes to a 3.15A fuse (F2 and F3) on the backpanel and from there to the bridge rectifier.

Your comment about the mains fuse F1 is absolutely valid.

I agree that the fuse in line with the primary should be 1.5 A, not 3A as you correctly have pointed out. The import tech must have had a busy time not thinking of this. He has put a label on the backpanel saying 3 fuses 3 amp each. I will simply put in a 1.5A fuse and change the label. The values on F2 and F3 do not appear on the original schematic at all. But I have calculated them to 2.27 Amp. So maybe a 2.5 amp fuse is OK. I'll have to tink about this. I just hope others with this export version reads your comment on this . If something goes wrong inside the amp a correct fuse may stop the total ruin of this fine amplifier. So many thanks for your competent observation. My amp is missing all effects switches bank and also the wah-wah pedal. But I can maybe make a switchboard myself as all the effect output are either earthed or not earthed. Someone in the forum said the wah-wah boost pedal had a 10K resistor. So a new boost pedal can be made. Dont expect to find one on the Ebay. Also the reverb tank is missing but I consider buying a new one - type Accutronics 4FB3D1B and install it. Someone in the forum said that the 4FB3D1B would be the best for the K25-4. Anyone with a different opinion?.

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Subject: Re: K-250-4 export models?

Posted by [stevem](#) on Wed, 14 Jan 2009 11:37:26 GMT

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Thanks for taking the time to post this info!

So in effect those 3.15 amps are on the dc power rails, and I could see that amps at full clip drawing well over 5 amps total, but heres one change I would consider.

If you never have a need to play the amp at over 6 to 7 on the volume control I would back those fuses down to something like 2.5 fast blow types as this would help prevent a cascade/( thats a good word to use with Kustoms)domino effect in the driver/output stage should something blow. I do alot of tube amp mods and restorations and I always install a added fuse to amps filament string and to the HT power feed also if it does not already have one, as all too many times with a 30 to 50 year old stressed PT a output tube or two shorting will start to fry the PT before the main fuse blows.

So where does this extra terminal board mount in the amp?

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Subject: Re: K-250-4 export models?

Posted by [arthur](#) on Wed, 14 Jan 2009 21:31:52 GMT

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Hello again.

Thanks for commenting.

The extra Terminal board of this export version K250-4 is of a simple narrow plastic type that you can cut with a plier so you get as many connection points as you need. This one TB has only 4 connection points of which three (A,B and earth) are used to fix the incoming power cord lines. It is approx. 1.5 X 1.0 inch and sits high up on the left hand side on the inside of the back panel, just

opposite to the mains transformer. I would include a picture, but of course my camera malfunctioned just now.

Now about the size of the fuses.

I fully agree with you on the matter of fuses. And it was an interesting and a useful info that you actually measured the max current consumption on the DC lines to 5 amps. On my K250-4 the fuse on each line to the rectifier is 3.15 A with 38 volts. That gives us approx. 120 Watts on each line and a total of 240 watts, which seem quite much. 2.5 A would allow a maximum of 190 watts to be drawn from the rectifier. Since the Powermodule needs a maximum of about 130-140 watts that leaves 50-60 watts for the other modules. That is if one plays with the volume continuously on max - which in my case will never happen. I think I'll try 2.5 A in each DC line to prevent the powermodule from frying as you pointed out. Better that the 2.5 fuse blows than the powermodule. Only I am not certain if a slow blow fuse should be inserted rather than a quick blow. But may be even a quick blow 2.5A fuse might pass currents higher than 2.5A for a very short time? I think I will try 2.5A quick fuses and try to play with volume on max for a short time to see how long it lasts and then play with normal volumes which in my case is lower than 5. The speaker cabinet coming with this amplifier has only one 15 inch Black widow (Peavey) speaker built in now. The amp was used with a fretless bass (Pastorious type) and I recon the former owner removed either 2 x 12 inch speakers or 2 X 15 inch speakers to install the 15 inch Black Widow. I am considering to replace that speaker with two 12 inch speakers for guitar to. Does anybody have any experience with new type speakers into this cabinet (that comes with the K250-4)? Could you or someone recommend some speakers for this amp and cabinet? I will be extremely glad if someone has any inputs for the speaker cabinet re-speakering.

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Subject: Re: K-250-4 export models?

Posted by [stevem](#) on Fri, 16 Jan 2009 11:35:33 GMT

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there are tons of great driver for guitar out now, with many new crossover types coming out of the Eminence line here in the states.

By crossover I mean drivers that meld a american and brit sound, they also have a model made to cover the 60s Jensen sound and it does it better than Jensen did it by having more volume per watt.

I would suggest to you to go to the Watford valve site to read the review that they have, hop to the Eminence site for their discriptions and even to the weber site.

If want the sound that Kustoms came with a reissue Jensen C12N or the Eminence patroit model made to cover that original jensen tone will make you smile.

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Subject: Re: K-250-4 export models?

Posted by [arthur](#) on Mon, 19 Jan 2009 21:02:31 GMT

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Thanks Stevem for helping me out! I managed to get the K-250-4 export version working again just by putting in new fuses. And what a great sound!

The only thing not working is the two lamps in those two blue switches on the front. It think that was fantastic.

But I will have to dismantle the whole amp in order to clean all connections and jacks as they seem corroded after at least 10 years in my attic in outside temperatures and moist. I have tried electronic cleaning spray on the contacts but it does not seem to remove the corrosion chemically, at least not to my satisfaction. Any Ideas of a better way to clean corroded contacts? For the cabinet I think I will install Eminence's Lil'Buddy. Two of those in parallel. I am looking for some creamy jazz guitar sounds. I am ordering some spares for the K250-4 now including a new reverb tank and footswitches. The wah-wah was not all that great so I think I'll go for an external one.

By the way, the other Kustom amp I have is an export version (230VAC) Charger P/N 200-0216-00 black tuck-and-roll combo. And that one is in mint condition and it can play load. The tone controls are unusually effective with an extremely wide range. I have no information on that amp but I see in the literature pages it has 150 Watt output power. I just wonder if the 150 watts are rated as Continuous or Peak or Music power. This amp was also imported from Sweden to Norway and it was used as an accordion amp by the former owner. I used it for guitar but mostly bass. It is great! Thanks again for all help. I like this site very very much!

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Subject: Re: K-250-4 export models?

Posted by [stevem](#) on Tue, 20 Jan 2009 11:50:59 GMT

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Hi.

All Kustom wattage ratings were for peak power, The amps RMS wattage was about half that at the intended impedance.

Some amps like the fully loaded K200A and B, -4 and -5 models and the fully loaded K250 model would only output 118 watts RMS due to the extra current load of all the effects circuits.

With the K150 series of amps the factory started using a big choke in the power supply (like in tube amps) which makes for an amp that holds its 75 watts RMS no matter how hard you play it!

To this day I have only seen a choke used in one make of high end solid state stereo amp!

Cleaning corrosion can be a pain.

On input jack switches, shells and tips I use some 600 or 800 grit wet or dry sand paper wetted with contact cleaner to polish off the crud and rust.

On the K250 and 150 with their Moldex connectors, I most times end up scraping them off with the sharp end of a scribe, bending the female ends back tight, and then spraying them down with some automotive white grease, or smearing some electronic heat sink silicone grease on the connectors to seal them from any more moisture migration.

The bulbs in the front switches can be replaced by carefully prying/pulling out the blue bottom. If you do a search you will find a previous posting on the replacement bulb number.

When installing the new bulb I load it in a piece of automotive vacuum hose to screw it in.

Be sure to lube the new bulb threads so it too does not rust into the socket.

Also be very careful when pushing the blue lens back in, as these switches plastic structure becomes very brittle with age and they snap at the mounting bracket to hold down nut area.

On all my K150s and 250s I add a nylon cable tie on each side of the bracket to shoulder the load better, as these exact replacement switches can not be found unless you find a donor amp!

Subject: Re: K-250-4 export models?  
Posted by [stevem](#) on Tue, 20 Jan 2009 11:52:30 GMT  
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Sorry, the K250 output 118 watts rms, the k200 would do 86 to 90 watts rms.

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Subject: Re: K-250-4 export models?  
Posted by [arthur](#) on Tue, 20 Jan 2009 21:14:49 GMT  
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Thanks Stevem for the whole set of advices. It is a big help to me as I have never done such delicate refurbishment before. But this is a rewarding and fun job. 118 Watts on the K250-4 is plenty. I am particularly glad for the advices on corroded contacts. So I will use 600/800 grit abrasive and some scribe or scraper combined with contact cleaner and protect the contacts with silicon or similar afterwards. Especially the moldex contacts are corroded. The Licon switches on my K250 seem to be in good condition. But then there is the problem with those miniature pilot bulbs on this K250. Thanks for the advice on those, only I should have asked you earlier as I managed to damage the only one working of the two bulbs (I used brute finger force instead of a hose). So now I need two new bulbs. I am in trouble here. Those blown miniature bulbs have screw base, not bayonet. Elsewhere in the forum it says the 200B amp use type 1829 bulbs as do the K250 also as they have the same Kustom Partno. 037-0005-00. And they are available on Mousers and Jameco. But those bulbs 1829 and 1819 have bayonet bases. I cannot use the 1829 - unless I force the bayonet-base-bulb into the screw socket of the switch. I would try everything else before I do that. Or - I might file off a little of the two pins on the bayonet base so that the pins of the 1829 can glide on the treads in the socket in such a way that it is possible to screw the bayonet bulb in just like a bulb with screw base. A second solution is to use a replacement bulb type 1821 Partno. 606-CM1821 at Mouser. It has screw base. Problem here is it draws 170 mA as opposed to 70 mA for the 1829. That's 3.4 Watts instead of 1 watt heat dissipation. I cannot find a miniature bulb that fits my K250 in any suppliers database. Someone must have had this problem before. Or are mine Licon switches the only ones with bulbs with screw base? Your opinion is highly appreciated Stevem. I would be very grateful if you can manage to find time to look at this.

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Subject: Re: K-250-4 export models?  
Posted by [LesS](#) on Tue, 20 Jan 2009 23:29:07 GMT  
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Hi Arthur,  
For a K250, the replacement bulb is GE335, which is 28 volts at 40ma. The bulb screws in.  
See below for more info.  
-Les S

(These two bulbs will fit, but are not correct and can cause the resistor to overheat:  
Radio Shack 272-1143...12 volts at 75ma  
GE373...14 volts at 80 ma  
Also they will not last very long, especially in the combo amps.)



Sources for bulbs:

www.Jameco.com - they are in California... 1-800-455-6119  
#335 lamp - part # 209605CA - \$.59 each

www.mouser.com - they are in Texas... 1-800-346-6873  
#335 lamp - part # 606-CM335 - \$.98 each

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Subject: Re: K-250-4 export models?

Posted by [stevem](#) on Wed, 21 Jan 2009 11:15:20 GMT

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Sometimes screwing these bulbs out of the socket can be a problem!

I had a k150 last year that I was working on for a fellow that had sen alot of dampness and both bulbs where blown and rusted into the sockets.

I wound up breaking the glass on both bulbs trying to get them out, but I did get them out!

On one bulb I dismantled the switch from the amps face and bit onto the bulbs metal base with a small electronic diangnal cutter type tool and broke it free, the other bulb was very messed up and I wound up sticking the shank of a long 4-40 machine screw into the metal base and gluing it in with a slow setting epoxy that I let cure for a full day, I was then able to back it out.

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Subject: Re: K-250-4 export models?

Posted by [arthur](#) on Wed, 21 Jan 2009 22:01:38 GMT

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Stevem, thanks for advicing. I am lucky to have you commenting. LesS tipped me kindly about sources for K250 bulbs so I ordered them just now from Mouser along with a bunch of transistors and other stuff.

But it may take a while before the order is delivered (not everything was stocked). I'll let you know how the bulbs work when I get them. I know this has nothing to do in this forum but I would like to compliment you with the new president inaguration yesterday. The interest in my country for this new man is so high one should think he was to be the president of Norway as well.

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Subject: Re: K-250-4 export models?

Posted by [arthur](#) on Wed, 21 Jan 2009 22:08:24 GMT

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Thanks LesS for the sourcing tip. Funny but I sat several hours yeasterday night trying to find bulbs for the K250 both at Mouser and Jameson without success. But with your partnumber 606-CM335 I were able to order them from Mouser at once. Thanks a lot. I'll let you know how the bulbs work when I get them.

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